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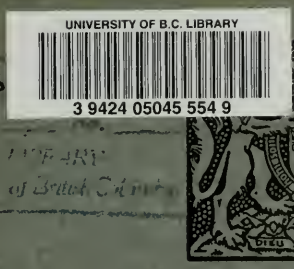
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ORANGES

WORLD PRODUCTION AND TRADE

MEMORANDUM PREPARED IN THE STATISTICS AND INTELLIGENCE BRANCH OF THE EMPIRE MARKETING BOARD

APRIL, 1929

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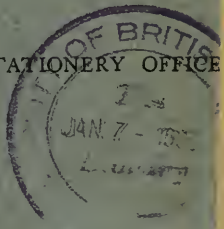

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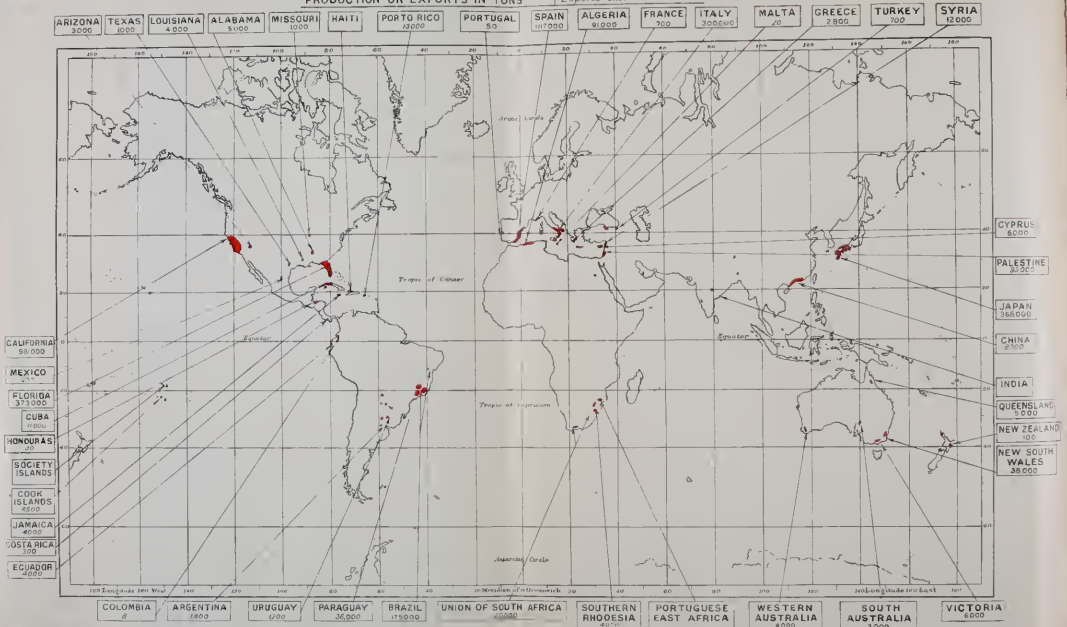
ORANGE-GROWING COUNTRIES OF THE WORLD

PRODUCTION OR EXPORTS IN TONS (Exports shown in italics)



FOREWORD.

THE Empire Marketing Board has received applications from time to time from certain Colonies for assistance in establishing or developing an orange export industry. At the same time the rapid development of the world's orange production and trade during the last few years and the increasing difficulty which producers in some countries find in disposing of their crops at remunerative prices, have drawn attention to the question whether orange production may possibly be in danger of developing too rapidly.

The Fruits Committee and the Agricultural Economics Committee of the Board accordingly suggested that the Board's Statistics and Intelligence Branch should undertake a statistical survey of the production and consumption of oranges, in order to serve as some guide in estimating the future possibilities of the orange market.

The memorandum deals only with the quantitative aspect of production and trade; the question of quality, important though it is, is introduced only in so far as it affects, or is likely in future to affect, the volume of oranges entering world trade. No attempt is made to consider such questions as the economics of production, market prices and transport costs. While these all play their part in influencing the exportable surplus in different countries, or in the import requirements of non-producing countries, they are matters for more local and intensive study than can be contemplated in this paper, which in essence consists only of a statistical record of the orange trade of recent years, and an indication of the general trend of production and consumption.

Certain minor difficulties have been encountered. In most countries the classification of oranges in trade returns does not differentiate between mandarines and close skinned oranges. Where such differentiation is made the separate figures have been shown; but the point is of minor importance.

A more important obstacle to complete records is the failure of some countries to separate lemons from oranges in their trade returns. These two fruits are only in part competitive and the classification of the two in one group, where it occurs, reduces the value of the figures.

Statistics of production and trade are given in a variety of measures—cwts., metric quintals, boxes, bushels and counts are all used, and there is no invariable factor for the conversion of boxes and counts into cwt. Generally in these tables the standard box has been taken as equivalent to 78 lb., the Spanish half case as about one cwt., and where trade returns show exports by number only, a rough conversion, varying with the type of orange, has been attempted in the text for the sake of comparison.

STATISTICS AND INTELLIGENCE BRANCH,
EMPIRE MARKETING BOARD. FEBRUARY, 1929.

ORANGES—WORLD PRODUCTION AND TRADE

INTRODUCTION.

1. Almost the whole of the world's orange production is found between latitudes 20° and 40°, in both northern and southern hemispheres. In the northern hemisphere production in both Spain and Italy extends slightly north of 40°, and there is a small production of oranges and mandarines in southern France, while just south of 20° there is the production, small in relation to the world total, of Jamaica, Porto Rico, Honduras and India. In the southern hemisphere, the only production south of 40° is the insignificant output in the South Island of New Zealand, while slightly north of 20° occurs the small production of Bahia (Brazil), Queensland and the Society Islands. Nearer the equator, oranges are produced in small quantities in Costa Rica, Colombia, Ecuador and tropical Africa, but rather over 99 out of every 100 oranges grown in the world are within the limits of latitude 20° and 40°.

2. The principal producers of oranges are the United States, Spain, Japan and Italy. The United States now vies with Spain in output, and in 1926–27 had the greater crop, but in that year the Spanish production was severely reduced by frost. In each of these countries during the past few years the output has been over one million tons per annum.

3. Italy and Japan compete for third place, but are far behind either Spain or the United States. There are many other countries producing considerable quantities, but in many cases production figures are not obtainable, and none of them are such large producers as the above four, which together produce fully three-quarters of the world's total output.

4. Most of the United States production is consumed within that country and Spain is easily the world's greatest exporter, its exports being roughly twice as great as those of all other exporting countries combined. Italy takes second place with a quantity about one-fifth that of Spain, and the United States is third, while Palestine is of growing importance, being now not far behind the United States. Smaller quantities are exported by the other producers, the chief contributors to world supplies being the Union of South Africa, Australia, Algeria, Japan, Syria, Cuba, Porto Rico, China, and the countries of South America.

5. The principal markets for exported oranges are in Europe. The United Kingdom takes fully one-third of the oranges entering world trade, Germany is second, importing in 1927 about one-half the quantity of the United Kingdom, while other important markets in Europe are France, Belgium, Holland, Poland, Czechoslovakia, Switzerland, Norway, Sweden, Hungary, Denmark, Irish Free State, and Rumania.

6. The following pages deal with the various producing countries, and with the chief European countries which comprise the markets for the bulk of the world's surplus production.

PRODUCTION AND EXPORT.

United States.

7. One of the two greatest growers of oranges in the world is the United States, which produced an average of over 34 million boxes annually during the years 1922 to 1926. The details of production in the various States during the five years ending 1927, are shown in the following table :—

TABLE I.—*Production of Oranges (including tangerines) in the United States* (1923–1927).

(In thousands of cwt.)

State.	1922–23.	1923–24.	1924–25.	1925–26.	1926–27.
California	14,688	16,084	12,604	16,853	19,619
Florida	7,104	8,984	8,080	6,337	7,452
Alabama	244	314	1	139	104
Arizona	56	60	42	60	52
Louisiana	42	52	52	70	87
Missouri	31	38	—	19	29
Texas	3	4	8	7	14
Total	22,168	25,536	20,787	23,485	27,357

8. Throughout the orange producing States, the number of orange trees in full bearing is increasing ; in Florida the number of trees increased more than 100 per cent. between the years 1920 and 1926. The number of orange trees of bearing age for various years in Florida and California is shown below :—

TABLE II.—*Number of Orange and Tangerine Trees of Bearing Age in Florida and California.*

(Thousands of trees.)

Year.	Florida.	California.
1889	2,725	1,154
1899	2,553	5,649
1909	2,790	6,619
1919	3,684	10,800
1922	5,125	16,456
1923	6,025	16,785
1924	7,306	17,114
1925	7,601	—
1926	8,546	—

9. The acreage of orange trees in bearing in California increased by 50 per cent. in the last eleven years, that is from 124,000 acres in 1917 to 187,000 acres in 1928, while the non-bearing acreage is now about 22,500 acres. According to official forecasts respecting the next few years, the bearing acreage is likely to remain stationary at about 187,000 acres, although production has probably not yet reached its maximum, as a considerable proportion of the area is not yet in full bearing. But it is significant that the 22,500 acres not in bearing in California consist for the most part of Valencias, the season for which runs from April to October, indicating an increasing production of summer oranges in future years.

10. But while only a moderate expansion in the productive capacity of Californian orange groves is to be looked for during the next few years, in Florida developments are likely to be much more pronounced.

11. Between 1919 and 1927 the bearing acreage of oranges in Florida increased by 143 per cent., from 53,000 acres to 128,000 acres, and the total acreage, including non-bearing, had reached 208,500 acres by 1927, or almost exactly the orange acreage of California at the present time. But of the Florida acreage no less than 80,000 acres, or 38½ per cent., were not yet in bearing in 1927, and a substantial proportion of the remainder had not reached full bearing.

12. An orange tree in Florida comes into bearing in its fifth year, so that by 1932, the whole of the 208,000 acres under oranges in 1927 should be in bearing, less only such areas as are taken out of production or are not allowed to reach production. According to "An Economic Survey of the Orange Industry of California," recently issued by the University of California, the net increase in bearing acreage in Florida by 1932 is estimated at 64,000 acres, or 50 per cent. on the 1927 figure.

13. The whole evidence goes to show that the productive capacity of these two States (other States are relatively unimportant) is likely to increase substantially within the next five years. The increase in the case of California will be only moderate, the chief factors to be considered being the greater average yield per tree as more trees come into or approach full bearing, and a possible expansion of bearing acreage as the present non-bearing acreage comes into bearing.

14. In Florida, however, there is an additional factor of importance. During the past four years (from 1924/5 to 1927/8) orange yields in that State have been below normal because of the adverse influence of the real estate boom, frost and drought.

15. These conditions cannot be expected to continue, and if yields per acre within the next four years recover only one half of the loss since 1924–25, annual production may easily reach 20 million boxes by 1932–33, and in a good year might reach 25 million boxes, as compared with the $10\frac{3}{4}$ million boxes in 1926–27 and 10 million boxes in 1927–28. With California producing over 30 million boxes, a total of over 55 million boxes, or 40 per cent. more than the 1926–27 figure, is possible within the next five years, although much depends upon the rapidity with which groves in Florida recover from the effects of the real estate boom, and upon the area which must be regarded as almost permanently lost to orange cultivation.

16. Production in the United States has recently increased much faster than the population and this disparity is likely to continue during the next few years. Despite the expedients which are being tried with the object of stimulating the domestic consumption of oranges and orange products, it is not improbable that the exportable surplus will increase also. Most of the United States oranges are at present consumed within the country and the number exported is small by comparison with the number produced, and with the exports from Spain. Of the 40 million boxes produced in 1926–27 less than 4 million were exported, although this represents an increase of

about 1 million boxes over the previous season. The bulk of the exports go to Canada, but between 1925–26 and 1926–27 exports to the United Kingdom nearly trebled, and this increase is especially important from the Empire standpoint inasmuch as exports to the United Kingdom market are mainly in the summer months when South African supplies are coming forward.

17. In the following table are shown United States production figures for the three years ended 1927 and exports during the corresponding years. It should be noted that the Californian citrus crop year runs from 1st November to 31st October, and those of other States from 1st September to 31st August. The export season has been taken as from 1st November to 31st October, as California at present produces over 70 per cent. of United States oranges, and the bulk of the oranges exported are Californian.

TABLE III.—*U.S.A. Production and Exports of Oranges, 1924–25—1926–27.*

	1924–25.	1925–26.	1926–27.
Production .. .. .. 000 boxes	29,850	33,220	39,280
Exports .. .. .. ,,	1,978	2,628	3,612
Percentage of exports to total production	6·6	7·7	9·2
Exports to—			
United Kingdom .. 000 boxes	42	218	619
Canada .. .. .. ,,	1,812	2,240	2,684
Other countries .. .. ,,	124	170	309
Percentage of total exports sent to—			
United Kingdom .. per cent.	2·1	8·3	17·2
Canada .. .. .. ,,	91·6	85·2	74·3
Other countries .. .. ,,	6·3	6·5	8·5

18. Owing to poor weather conditions, the 1927–28 orange crop in Florida and California combined was reduced to about the 1925–26 figures, and exports were correspondingly reduced during the past twelve months. But the above table shows that with a satisfactory crop the United States has already a large exportable surplus apart from the quantity taken by Canada.

19. With so great a domestic market it is impossible to foretell what the distribution of the United States orange crop may be in four years' time, if production reaches 55 million boxes. Consumption is increasing rapidly, but with a crop 40 per cent. in excess of the

record of 1926–27, consumption would need to show a more than commensurate increase if the exportable surplus were not to become unwieldy. In the case of apples, from 11 to 12 per cent. of the commercial crop is exported annually with fair regularity. If the position in regard to apples is paralleled by oranges, exports would reach between 6 million and 6½ million boxes in a crop of 55 million boxes, and it is doubtful whether Canada would be able to absorb more than one-half this quantity, leaving some 3 million boxes for other markets. But a variation of only 2 per cent. in domestic consumption would alter the exportable surplus by a million boxes.

20. The bulk of the United States orange crop is marketed from November to May, the only oranges marketed from June to October being the Valencia oranges of Southern California ; and (in October) the first shipments of the Florida crop. The Florida season extends from October to June with December as a peak month ; central California (of relatively small importance) ships Navels in November and December and Valencias in April and May ; and the southern Californian Navel crop runs from November to April or May. Table IV below shows orange movements by months over the four years 1924–25 to 1927–28.

TABLE IV.—*Movement to Market of United States Oranges.*

Month.	1924–25.	1925–26.	1926–27.	1927–28.
	Carloads.	Carloads.	Carloads.	Carloads.
November	8,511	7,023	6,342	4,677
December	8,797	7,877	9,877	9,736
January	8,382	6,537	7,988	6,349
February	6,598	6,243	7,606	6,006
March	7,035	7,904	8,990	7,055
April	5,599	8,098	9,296	6,036
May	4,808	5,683	7,172	5,499
June	3,416	4,183	5,168	2,920
July	2,031	4,163	4,084	3,027
August	1,740	3,210	3,666	2,764
September	1,726	3,044	3,265	2,755
October	1,165	3,183	3,296	2,846
Total	59,808	67,148	76,750	59,670
Percentage, 5 months, June–October	*16·8%*	*26·5%*	*25·4%*	*24·0%*

21. Only about one-quarter of the United States orange crop is marketed during the five months June to October, and the prospective increase in the output is likely to enhance this disparity. Estimates of increasing production are based partly upon a recovery in yields in Florida, which will mainly affect supplies from November to April, and partly upon the increasing bearing acreage in Florida, which will result in larger supplies in the same period, but especially from February to April, as the non-bearing acreage consists largely of Valencias. A slight increase in the relative bearing acreage of Valencias as compared with Navels in California is in prospect, but this is of much less importance than the prospective increase in Florida production.

TABLE V.—*Exports of Oranges from the United States by Months.*

Month.	To United Kingdom.	To Canada.	To other Countries.	Total Exports.
	Thousand boxes.	Thousand boxes.	Thousand boxes.	Thousand boxes.
1926–27.				
November	10	122	16	148
December	7	294	20	321
January	12	204	17	233
February	19	189	24	232
March	21	280	32	333
April	72	286	31	389
May	53	342	51	446
June	97	308	44	449
July	122	215	39	376
August	83	202	13	298
September	77	129	11	217
October	46	112	11	169
1927–28.				
November	1	78	9	88
December	1	303	27	331
January	4	188	23	215
February	8	216	10	234
March	6	264	25	295
April	15	220	21	256
May	20	236	31	287
June	18	185	18	221
July	15	140	20	175
August	27	148	11	186
September	22	111	12	145
October	6	94	8	108

22. Exports from the United States to Canada continue throughout the year, but from November to March or April, when European orange crops are being marketed, only small quantities are shipped to Europe. Table V shows exports by months during the two years commencing November, 1926.

23. The ability of European markets to absorb large quantities of United States oranges between November and April is limited on account of the large supplies of comparatively cheap Mediterranean fruit during that season, but it is precisely during those months that United States production is likely to show the greatest increase.

Spain.

24. Spain is second only to the United States among the orange-producing countries of the world, the total crop averaging about 22,000,000 cwt. A large number of varieties are grown, but in general the fruit is classified as " Whites," " Bloods " and " Blood Ovals," together with bitter oranges and mandarines. Over 70 per cent. of the total area of oranges is in the two provinces of Valencia and Castellon, covering a long strip of land on the Mediterranean coast from Vinaroz in the north to Denia in the south, about 150 miles long and 10 to 20 miles wide. The remaining production in Spain is in Murcia, Almeria and Malaga on the same coast, and Seville inland, where the famous bitter oranges are produced.

25. In Table VI are shown the total area and production of oranges for the past three years, according to statistics issued by the Agronomic Council at Madrid.

TABLE VI.—*Area and Production of Oranges in Spain.*

Year.	Area (acres).	Production (cwt.).
1925–26	131,800	23,060,000
1926–27	133,100	20,553,000
1927–28	146,000	22,343,000

26. The market for Spanish oranges is the continent of Europe, the quantity sent to other parts of the world being negligible. More than half of the exports in 1926 were consigned to the United Kingdom

while large quantities were sent to France and Germany, and substantial amounts to Belgium, Holland, Norway, Denmark and Sweden. The following table shows Spanish orange exports to various countries during a number of recent years.

TABLE VII.—*Exports of Oranges from Spain.*

Consigned to	1920.	1921.	1924.	1925.	1926.
	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.
Great Britain	4,012	5,467	6,446	6,726	7,117
Germany	—	—	1,778	2,369	1,995
France	438	1,342	1,608	2,468	2,609
Norway	130	115	201	239	231
Belgium	189	488	986	1,004	977
Holland	117	590	1,300	995	870
Denmark	68	147	184	142	121
Sweden	80	69	87	105	99
United States	6	3	5	5	1
Argentine	2	2	2	5	—
Poland	—	—	11	—	—
Finland	—	—	—	—	46
Other countries	35	322	5	9	48
Total	5,077	8,545	12,613	14,067	14,114

27. It will be observed that total exports are increasing, the 1926 total figure being as much as 180 per cent. in excess of that for 1920. The United Kingdom and French markets are absorbing a steadily increasing amount and Germany has again become a purchaser during recent years. During last season (1927–28), total exports amounted to nearly 16,000,000 cwt., of which 6,800,000 cwt. were shipped to the United Kingdom, 6,000,000 cwt. to markets in Northern Europe, while 3,000,000 cwt. were sent overland across the French border.

28. There is some apparent discrepancy between the figures of production and export. Owing to high internal transport costs the consumption of oranges in the non-orange producing districts of Spain is very small, and total Spanish consumption is generally

understood to form only a small percentage of the quantity produced. The figures in the above tables, however, indicate an export of only 70 per cent. of production, and it is somewhat doubtful whether the balance can be accounted for by domestic consumption and waste.

29. Figures of new plantings of oranges in Spain are not available, but it is understood that there have been extensive plantings in recent years, and this information is borne out by the figures of orange acreage given in Table VI, which indicate an increase in area of more than 10 per cent. in the past two years. Indefinite as the available information is, it suggests that exports of oranges from Spain are likely to increase, and where export is already so large in relation to exports from other sources, even a small proportionate increase becomes of prime importance.

30. Shipments of Spanish oranges commence in November and continue to be heavy until May or June, after which comparatively few are exported. Thus the figures for calendar years include the latter part of one season and the first part of another. The following table shows the exports by principal countries in each of the quarters of the year 1926.

TABLE VIII.—*Exports of Oranges from Spain*, 1926.

Consigned to	January to March.	April to June.	July to September.	October to December.
	000 cwt.	000 cwt.	000 cwt.	000 cwt.
Great Britain	3,328	2,286	467	1,036
France	1,426	535	7	642
Germany	1,271	445	21	258
Belgium	674	186	29	88
Holland	361	338	117	53
Norway	142	45	33	10
Sweden	62	26	2	9
Denmark	94	24	Nil	4
Other countries	47	24	1	23
Total	7,405	3,909	677	2,123

31. The oranges exported are generally graded to size, and the package most commonly used is the half-case of about 110 lb., the number to the half-case varying from 240 to 504. In 1925–26 and again in 1926–27, following frosts in December, export was prohibited for a short period, and a system of inspection was inaugurated to prevent the shipment of frost-damaged fruit. Generally, however, until this year there was little regulation as regards quality or condition of fruit exported, and while the bulk of the fruit shipped to the chief consuming markets was of good quality, arrivals towards the end of the season were frequently in indifferent condition. With the commencement of the 1928–29 season, however, a system of government inspection has been inaugurated to prevent the export of fruit considered unsuitable for consuming markets.

32. The overwhelming importance of Spain as a source of cheap oranges for the large consuming markets of Europe is undeniable and there is very little prospect of her pre-eminence being challenged. Costs of production and marketing are low, transport costs to consuming markets are small, and it has been estimated that by improvements in methods of cultivation the output could be very greatly increased.

33. The end of the Spanish season in June overlaps the beginning of the South African season, but the variable and often poor condition of the late season arrivals minimises the competition between the fruits from the two countries. If Spain is able to develop successfully the production of later varieties of oranges, and so extend her season, the competition might well become formidable. But although a few years ago there was a good deal of interest, especially in the Murcia district, in the Verna Imperial variety, which is avilable for shipment from June onwards, this interest has now waned.

Italy.

34. Italy is the third largest grower of oranges supplying fruit to European markets although production is far below that of the United States and Spain. According to the Banca Nazionale dell' Agricultura, the crop for 1926–27 amounted to 266,000 tons and that of mandarines

to 34,000 tons, as against an average for the years 1921–25 of 271,000 tons of oranges and 24,000 tons of mandarines. The Notizie Periodiche di Statistica Agraria gives the total production of oranges in 1925 at 260,000 tons, over 50 per cent. of which were produced in Sicily, and of mandarines at 27,000 tons, the details for the various provinces being as follows :—

TABLE IX.—*Production of Oranges and Mandarines in Italy,* 1925.

	Oranges.	Mandarines.
	000 cwt.	000 cwt.
Sicily	2,921	313
Calabria	1,488	98
Campania	593	100
Apalia	89	—
Sardinia	108	20
Total	5,199	531

35. The area under oranges is reported to be extending but slowly, if at all, and no substantial increase in production is to be expected, at any rate in the near future. In fact, production in recent years has tended to decrease, although new plantings, when they are made, are mainly of varieties suitable for export.

36. Italian exports for the four years 1924 to 1927, were greatly in excess of those for the two previous years, but the increase is mainly accounted for by the larger quantities taken by Germany. Average exports for the three years 1925–27, amounted to 142,000 tons per annum, as compared with an average of 118,000 tons per annum for the five years, 1909–13.

37. The following table shows the exports to principal countries of consignment for the years 1923–27. Germany is by far the greatest buyer, although considerable quantities are sent to other European countries.

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TABLE X.—*Distribution of Exports of Oranges and Mandarines from Italy*, 1923–27.

Consigned to	1923.	1924.	1925.	1926.	1927.
	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.
Germany	333	1,195	1,406	1,088	1,399
Austria	190	316	468	397	415
Switzerland	231	233	205	123	149
Hungary	1	41	170	238	261
Czechoslovakia	82	106	139	187	195
France	494	137	75	27	59
Yugo-Slavia	57	62	69	118	119
United Kingdom	49	46	41	150	72
Poland	7	93	64	102	108
Sweden	31	50	42	87	123
Denmark	24	38	29	35	34
Rumania	27	40	12	17	31
Malta	17	—	23	25	19
Belgium	6	8	56	4	16
Other countries	52	64	41	72	71
	1,601	2,429	2,840	2,670	3,071

38. The principal exporting months are from December to June, and the quantity consigned from July to November is small. The following table shows the monthly exports for 1926 and 1927 :—

TABLE XI.—*Exports of Oranges and Mandarines from Italy.*

Month.	1926.	1927.
	000 cwt.	000 cwt.
January	387	499
February	514	847
March	722	742
April	457	489
May	263	262
June	66	31
July	3	2
August	2	—
September	1	—
October	—	—
November	25	44
December	230	155
Total	2,670	3,071

39. Several varieties of oranges are grown in Italy, the two main types being Sicilian "bloods" and "ovals." In addition there is the appreciable production of mandarines (the Sicilian mandarine is said to be the largest in the world) and a relatively small output of bitter oranges.

40. Orange growing in Italy has in the past been unorganised and no restrictions were imposed upon exports in respect of quality or grading. The export industry is now being put on a sounder basis, and the National Institute for Exportation is empowered to grant licences for the use of a national mark by exporters complying with certain prescribed requirements as regards size, quality and packages. While this may at first tend to reduce the volume of shipments, it is not certain to do so, as the use of the mark is not compulsory. But it should certainly tend to improve the general quality of the oranges exported, and the increased returns gained thereby may ultimately lead to an increase in the volume of export.

Palestine.

41. The importance of Palestine as a producer and exporter of oranges is growing rapidly. The area under cultivation has more than doubled between the years 1924 and 1928, and the rate of planting is apparently increasing year by year. The area of new plantations and the total under cultivation for the past six years is shown below :—

TABLE XII.—*Orange Cultivation in Palestine.*

Year.	Area of New Plantations.	Total Area under Orange Cultivation.
	Acres.	Acres.
1923	—	5,400
1924	450	5,900
1925	1,130	7,000
1926	1,590	8,600
1927	1,590	10,200
1928	3,400	13,600

42. A steady and considerable increase in orange production may thus be looked for. According to the report of the Palestine Fruit Commission bearing commences from six to eight years after plantation, and it seems evident that hardly any of the 8,000 acres added since 1923 can yet be in bearing. Production is thus likely to increase fully 100 per cent. within a few years, and even then the limit of production of the present groves will not be reached. Moreover planting is still going on extensively.

43. The following table shows export of oranges in each calendar year from 1922 to 1927.

TABLE XIII.—*Exports of Oranges from Palestine.*

Year.	*Quantity. Thousand cwt.**
1922	863
1923	1,109
1924	1,310
1925	1,301
1926	1,315
1927	1,851

* Converted from boxes at 78 lb. per box.

44. The bulk of the exports are destined for the United Kingdom, but large quantities of fruit of lower quality are sent in bulk to Egypt. Recent returns show that direct shipment to continental markets (mainly Germany) is increasing. The export season starts late in November and continues to about April. In table, XIV which shows exports by months for the past two seasons, the increasing exports to the continent are clearly shown; the figures are exclusive of the exports of fruit in bulk to Egypt.

45. The Jaffa orange is of quite distinctive type and is well famed for its sweetness and flavour. The best fruits go to the United Kingdom and to Northern European markets, large and thick skinned fruits are popular in Constantinople, although this market is less important than formerly, and, as stated above, the inferior grades go to Egypt and other markets in the Eastern Mediterranean.

TABLE XIV.—*Shipments of Boxes of Oranges from Palestine.*

Destination.	Nov.–Dec.	Jan.	Feb.	Mar.	Apr.	Total.
1926–27.						
United Kingdom ..	537,400	484,500	322,900	490,500	68,900	1,904,200
Germany	13,600	29,300	8,100	15,300	—	66,300
Rumania	4,500	8,000	9,700	11,300	—	33,500
Czechoslovakia	9,200	—	—	—	—	9,200
Denmark..	—	—	700	—	—	700
Bulgaria	500	—	—	600	—	1,100
Other countries	—	—	—	9,700	—	9,700
Total	565,200	521,800	341,400	527,400	68,900	2,024,700
1927–28.						
United Kingdom ..	504,500	438,900	245,100	437,300	103,400	1,729,200
Germany	60,900	19,600	25,000	36,000	—	141,500
Rumania	3,700	17,400	22,600	7,000	1,100	51,800
Holland	13,900	8,300	7,000	3,400	—	32,600
Czechoslovakia ..	7,400	—	—	—	—	7,400
Denmark..	1,500	2,700	800	11,600	—	16,600
Bulgaria	—	1,700	600	400	—	2,700
France	3,000	2,900	1,800	1,200	—	8,900
Belgium	—	500	—	—	—	500
Other countries	2,700	1,900	400	—	—	5,000
Total	597,600	493,900	303,300	496,900	104,500	1,996,200

46. A considerable proportion of the fruit is liable to become wasty, particularly towards the end of the season, and as in so many other producing countries the pressure of competition is forcing the growers to take some measures to safeguard their markets for the future. A system of inspection was inaugurated last season with a view to raising the standard of fruit exported to the principal markets.

Union of South Africa.

47. The Union of South Africa is fast developing as an orange producer and very rapidly increasing supplies may be expected from this area. A special census of fruit trees was taken in 1927 and the results were published in the October Bulletin of Union Statistics. The following table shows the number of orange trees at different ages in each of the main provinces.

TABLE XV.—*Number of Orange Trees grown for commercial purposes in the Union of South Africa,* 1927.

Age.	Cape.	Natal.	Transvaal.	Total.
Under 3 years	351,025	21,903	575,981	948,909
3 to 4 years	122,953	38,627	600,335	761,915
5 to 7 years	148,726	40,783	472,160	661,669
8 years and over	245,092	32,809	400,134	678,035
Total (all ages)	867,796	134,122	2,048,610	3,050,528

48. These figures show that about 55 per cent. of the trees were below five years of age and consequently not yet yielding appreciable quantities of fruit. Only about 20 per cent. had reached the full bearing age. A greatly increased production is therefore to be expected.

49. Information was also collected regarding the number of orange trees growers were proposing to plant in the near future, showing that the total number of trees was likely to be increased between 20 and 25 per cent. in the next two or three years, as shown below :—

TABLE XVI.—*Proposed Plantings of Orange Trees in the Principal Orange-growing Areas of the Union.*

Cape	238,261
Natal	17,003
Transvaal	416,466
Total ..	671,730

50. Exports of oranges and naartjes (tangerines) from the Union of South Africa are almost exclusively to the United Kingdom, no less than 560,000 boxes of oranges out of a total of 563,000 being consigned thither in 1926, while in the case of naartjes the United Kingdom takes an even larger proportion. The following table gives the exports for the years 1924, 1925 and 1926, showing countries of consignment :—

TABLE XVII.—*Exports of Oranges and Naartjes.*

Exported to	Oranges.			Naartjes.		
	1924.	1925.	1926.	1924.	1925.	1926.
	Boxes.	Boxes.	Boxes.	Boxes.	Boxes.	Boxes.
United Kingdom ..	398,366	659,230	559,650	55,811	65,794	16,029
India	18	135	—	—	—	—
Ascension Is.	9	38	42	1	—	3
Mauritius	53	182	69	—	59	—
St. Helena	15	40	42	—	—	6
Kenya Colony	—	3	133	—	—	—
Germany	—	—	1,800	—	—	—
Holland	—	—	137	—	—	—
Belgian Congo	7	83	363	—	113	—
Portuguese East Africa ..	555	658	302	210	124	—
Madagascar	—	28	—	—	—	—
Total ..	399,023	660,397	562,538	56,022	66,090	16,038

51. The rapid development of the Union's export trade in oranges since the war is illustrated by the table given below, showing the shipments of oranges and naartjes to the United Kingdom from 1910 to 1927, the number of boxes having increased by over 680 per cent. since 1920. The figures include shipments from Rhodesia and Portuguese East Africa through Union ports.

TABLE XVIII.—*Shipments of Oranges and Naartjes from South Africa.*

Year.	Oranges.	Naartjes.
	Boxes.	Boxes.
1910	10,387	—
1911	14,573	12,403
1912	15,773	2,614
1913	29,384	7,825
1914	43,568	25,400
1919	45,439	5,361
1920	108,048	4,867
1921	217,746	22,236
1922	282,585	38,102
1923	356,087	41,103
1924	445,917	57,518
1925	676,368	67,500
1926	583,591	16,177
1927	845,276	57,918

52. The very striking increase in future production indicated by the foregoing tables suggests that the exportable surplus may easily be trebled or quadrupled within a relatively short time.

53. The Washington Navel and the Valencia Late are the chief varieties of oranges grown, together with naartjes (tangerines), and small quantities of other varieties. Most of the fruit is shipped co-operatively, and a rigid system of Government inspection is in force to maintain the high standard of quality, packing and grading for which the South African fruit is famed. Increasing competition may lead to a further raising of the standard for export, and the retention for domestic use of oranges of quality which is now permitted to be exported; but this would modify to only a slight extent the increasing surplus of fruit available for export, and would make still more imperative the question of discovering a suitable means of disposing of the large proportion of culled fruit.

Southern Rhodesia.

54. Exports of oranges from Southern Rhodesia have rapidly expanded since the first commercial consignment to the United Kingdom in 1916, during which year the total quantity exported to Europe was only 1,300 boxes, as compared with 45,000 boxes in 1923. During the latter year there were 172,000 orange trees, of which 99,000 were in bearing and 73,000 not in bearing. This number had increased in 1926–27 to 204,500, of which 158,500 were bearing and 46,000 not in bearing.

TABLE XIX.—*Exports of Oranges from Southern Rhodesia.*

Years.	*No. of Boxes.*
1916	1,336
1919	2,339
1920	7,675
1921	15,422
1922	22,663
1923	44,760
1927	118,069

55. There seems little doubt that production in Southern Rhodesia will develop further, as the number of trees in full bearing increases.

Exports are made mainly through Union ports and Beira, and the above figures are partly included in certain of the South African exports given earlier.

France.

56. Small quantities of oranges and mandarines are produced in France, the approximate result of the harvest in the various districts for 1927, according to the Bulletin de l'Office de Renseignements Agricoles, being as follows :—

TABLE XX.—*Approximate Production of Oranges and Mandarines, 1927.*

Department.	Oranges.	Mandarines.
	Cwt.	Cwt.
Alpes Maritimes	4,530	3,310
Corse	2,360	3,540
Hérault	20	—
Pyrénées Orientales	40	—
Total	6,950	6,850

57. The production of oranges appears to be decreasing, however, the 1927 crop being only half that of 1925, and only one-fifth of that of 1913, the figures being :—

TABLE XXI.—*Production of Oranges and Mandarines in France.*

Year.	Oranges.	Mandarines.
	Cwt.	Cwt.
1913	36,600	3,600
1925	13,600	8,800
1926	7,700	6,800
1927	6,900	6,800

58. It is not possible to give the exports of oranges from France as the Trade Returns do not distinguish between that fruit and lemons. As regards mandarines, however, the necessary particulars are

available. Total exports of French produced mandarines and China oranges amounted to about 10,000 cwt. in 1926, as against 6,000 cwt. in 1925; but the quantities for 1927 are far below those of the two previous years, amounting to only 2,000 cwt. It is probable that these figures include re-exports of Algerian produce, as it will be noted that in 1926, the quantity exported is greater than the production. The details of exports for the past few years, as compared with 1913, are as given below, the chief countries to which the fruit is consigned being Germany, Belgium and Switzerland.

TABLE XXII.—*Exports of French produced Mandarines and China Oranges.*

	Cwt.
1913	500
1922	600
1923	900
1924	13,400
1925	6,200
1926	9,700
1927	2,100

59. There seems no prospect of development in the export of oranges and mandarines from France. France is already a large importer and the small domestic production is of little account and is tending to decline.

Portugal.

60. Exports of oranges from Portugal are shown by number only, and exports during the past few years as compared with 1913 are shown below, the principal countries of consignment being Spain and the United Kingdom :—

TABLE XXIII.—*Exports of Oranges from Portugal.*

	Thousand.
1913	2,078
1921	3,599
1922	6,119
1923	5,935
1924	2,858
1925	2,520
1926	268

61. At an average of about 300 to the cwt., exports would amount to only 1,000 cwt. in 1926, and in the peak year would represent only 20,000 cwt. There seems little prospect of Portugal developing a substantial export trade in oranges.

Cyprus.

62. Fair quantities of oranges are grown in Cyprus and cultivation is said to be increasing. Production in 1927 amounted to 28,000,000 as compared with 30,000,000 in 1926. There is a considerable export trade, nearly 21,000,000 fruits being exported in 1927. Up to the present, exports have been mainly to Egypt and Greece, but there are possibilities of wider markets being developed in future. The quality of the fruit is said to compare not unfavourably with the Jaffa product, which it resembles, and that exports to the United Kingdom have not yet begun on a commercial scale is stated to be due mainly to lack of adequate transport facilities.

63. Exports are shown in the official trade returns by number only. The exports for the years 1925 to 1927 are shown in the following table :—

TABLE XXIV.—*Exports of Oranges from Cyprus.*

Exported to.	1925.	1926.	1927.
	Thousand.	Thousand.	Thousand.
Egypt	11,561	10,620	13,714
Greece	4,925	3,581	7,006
Turkey	14	28	1
United Kingdom	267	25	17
Syria	234	7	14
Dodekanesia	4	6	—
Rumania	200	—	—
Sea	7	8	21
France	20	—	—
Castellerizo	—	—	2
Total	17,232	14,275	20,775

64. Assuming the fruit to be comparable in size to the Palestine product, exports in 1927 would represent a weight of over 90,000 cwt.

Algeria.

65. According to the report of the Department of Overseas Trade the total output of oranges in 1925–26 in Algeria was 37,110 tons while the mandarine crop amounted to 54,300 tons. The combined total of oranges and mandarines was thus as great as that of Palestine up to two years ago, but the increase in production in the latter country has put it definitely ahead.

66. The following table gives the areas under cultivation and the output in the various districts :—

TABLE XXV.—*Areas under Orange Cultivation and Output in Algeria in 1925–26.*

Department.	Oranges.		Mandarines.	
	Acres.	Thousand cwt.	Acres.	Thousand cwt.
Algiers	4,330	450	4,860	908
Oran	4,320	171	1,890	76
Constantine	2,340	120	1,710	102
Total	10,990	741	8,460	1,086

67. The area under citrus fruit is growing steadily and the production of oranges increased from about 570,000 to 740,000 cwt. between 1921–22 and 1925–26, while the yield of mandarines increased from 640,000 to 1,090,000 cwt. in the same period. Mandarines are the chief citrus fruit exported, but growers are reported to be considering the possibility of planting American orange trees to obtain a fruit suitable for export.

68. Exports of oranges and mandarines for 1926 and 1927 as compared with 1913 are shown below :—

TABLE XXVI.—*Exports of Oranges and Mandarines from Algeria.*

	1913.	1926.	1927.
	000 cwt.	000 cwt.	000 cwt.
Oranges	72*	153	93
Mandarines	133	469	246

* Includes lemons.

69. Practically the whole of these exports are destined for France, where they are favoured by tariff preference ; 152,000 cwt. of oranges and 460,000 cwt. of mandarines were consigned to France in 1926. There seems little probability at present of any appreciable quantities being shipped to other markets, but the increasing supplies sent to France limit the quantities that that country can absorb from other producers.

Syria.

70. According to the Italian National Export Institute the production of citrus fruits in Syria in 1926–27 amounted to about 448,000 cwt. and in 1927–28 to 344,000 cwt., but only about 70 per cent. of these are oranges, the remainder being lemons.

Exports of oranges for the years 1925, 1926 and 1927 are shown in the following table :—

TABLE XXVII.—*Exports of Oranges from Syria.*

Exported to	1925.	1926.	1927.
	000 cwt.	000 cwt.	000 cwt.
Turkey	63	26	41
Egypt	77	26	31
United Kingdom	2	3	—
Other countries	38	21	—
Total	180	76	72

71. Egypt and Turkey take the bulk of the citrus fruit exported, but small quantities are sent to the United Kingdom.

Japan.

72. The production of oranges in Japan amounts usually to about 5,500,000 cwt., and Japan thus vies with Italy for third place among the world's producers of oranges. In 1925–26 production amounted to over 7,000,000 cwt. On the whole, production is tending to increase. In the following table are shown for 1914 and for each of the four years, 1922–23 to 1925–26, the number of orange trees and the total production of oranges in Japan :—

TABLE XXVIII.—*Japanese Orange Production.*

Number of trees.	1914.	1922–23.	1923–24.	1924–25.	1925–26.
	Thousand.	Thousand.	Thousand.	Thousand.	Thousand.
Mandarine	15,807	18,247	18,589	19,977	19,795
Navel orange	1,495	1,445	1,389	1,385	1,391
Bitter orange	3,675	3,465	3,281	3,319	3,402
Other orange*	3,362	2,277	2,179	2,204	2,274
Total	24,339	25,434	25,438	26,885	26,862
Production.	Thousand cwt.	Thousand cwt.	Thousand cwt.	Thousand cwt.	Thousand cwt.
Mandarines	2,900	4,212	3,955	3,941	5,387
Navel oranges	153	255	234	241	285
Bitter oranges	2,418†	678	936	1,109	1,244
Other oranges*	607	422	403	395	453
Total	6,078	5,567	5,528	5,686	7,369

* Prior to 1925–26, these were shown as " other citrus."

† This exceptionally large production has never since been approached; 1915 production amounted to only 827,000 cwt.

73. In comparison with the year 1914, there has been an appreciable increase in the number of mandarine trees, and in the annual crop of mandarines. The numbers of trees of other types of orange has shown no increase, and is tending to decline, but production appears to be fully maintained.

74. Although the bulk of the oranges produced in Japan are retained for home consumption, considerable quantities of oranges (mainly mandarines) are exported, totalling some 17,000 tons in 1926 and 1927. These are destined mainly for the Kwantung Province of China, but fair quantities are sent also to the United States and Canada. The 1927 total is not greatly in excess of that for 1913, but the trend of exports in recent years has been upward,

although there seems no reason to anticipate any great increase in exportation to western markets in the near future. The following table shows exports of mandarines during the six years, 1922 to 1927 indicating principal countries of consignment.

TABLE XXIX.—*Exports of Mandarines from Japan.*

Destination.	1922.	1923.*	1924.	1925.	1926.	1927.
	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.
Kwantung Province ..	139	130	123	164	228	
China	27	33	21	37	55	(Not
Canada	47	64	39	44	25	avail-
U.S.A.	10	24	7	9	32	able.)
Asiatic Russia	12	4	3	2	2	
Other countries	2	3	—	1	—	
Total	237	258	193	257	342	334

* Does not include July and August for Yokohama, owing to loss of return at time of great earthquake.

75. In pre-war days Asiatic Russia was one of the principal markets, taking nearly as large a proportion of the exports as the Kwantung Province.

China.

76. Considerable quantities both of close-skinned and mandarine oranges are grown in Southern China, chiefly along the south-east coast, in the provinces of Chekiang, Fukien, and Kwangtung, but no production figures are available. The bulk of the production is consumed locally, and there are normally large shipments to Northern China, while there are also considerable exports, the total in 1926 being some 160,000 cwt., but China is also a large importer of oranges, receiving some 366,000 cwt. from abroad in the same year. Exports are mainly to Singapore, the Straits Settlements, Hong Kong, Siam, and French Indo-China. The following table shows the exports under countries for the six years, 1921–26.

TABLE XXX.—*Exports of Fresh Oranges from China.*

Exported to.	1921.	1922.	1923.	1924.	1925.	1926.
	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.
Singapore, Straits, etc. ..	123	64	44	89	65	83
Hong Kong	152	102	83	105	46	26
French Indo-China ..	17	17	13	27	20	28
Siam	62	46	23	43	26	19
Macao	3	3	1	2	4	2
Philippine Islands ..	1	1	1	1	1	3
Russia, Pacific Ports ..	1	—	—	—	—	—
Total exported abroad ..	359	233	165	267	162	161

77. The imports are mainly from Japan, but substantial quantities are received from the United States. The following table shows the imports under countries for the four years ended 1926 :—

TABLE XXXI.—*Imports of Fresh Oranges into China.*

Imported from.	1923.	1924.	1925.	1926.
	000 cwt.	000 cwt.	000 cwt.	000 cwt.
Japan (including Formosa) ..	167	151	215	313
U.S.A. (including Hawaii)	9	13	15	31
Hong Kong	6	7	4	—
Korea	5	5	7	4
Russia (Pacific Ports)	—	—	9	18
Total	187	176	250	366

78. These two tables taken in conjunction suggest that, although exports fluctuate, they are on the whole tending to decline, whereas imports are tending to increase. China not only appears capable of absorbing the increasing exports from Japan, but is also providing an increasing outlet for the Californian surplus production.

Porto Rico.

79. Citrus fruits are grown to a very considerable extent in Porto Rico, but no figures of production are available. Oranges are of less importance than grape-fruit. Orange exports go almost entirely to the United States, although there have been some small consignments sent (via New York) to the United Kingdom. Shipments for the year ended 30th June, 1928, amounted to 546,000 boxes. Exports to the U.S.A. have been as follows in recent years :—

TABLE XXXII.—*Exports of Oranges from Porto Rico to the U.S.A.*

	Thousand cwt.
1925	303
1926	220
1927	259

80. The volume of imports from Porto Rico is, of course, small in relation to U.S.A. production, and their importance lies mainly in the fact that they precede the Florida crop by a few weeks.

Cuba.

81. The chief citrus fruit grown in Cuba is the grape-fruit, but the production of oranges for export is increasing, as is shown in the following table of the quantities exported for the three years ended 1926 compared with 1912 and 1913. Practically the whole are consigned to the United States.

TABLE XXXIII.—*Exports of Oranges from Cuba.*

Exported to.	1912.	1913.	1924.	1925.	1926.
	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.
U.S.A.	64	122	187	165	222
Canada	1	1	1	5	2
Total	65	123	188	170	224

Jamaica.

82. Increasing quantities of oranges are being produced in Jamaica. In 1905-6 the area devoted to orange cultivation was 609 acres; this had increased to 690 acres in 1915–16 and to 796 acres in 1927–28. Exports are mainly to the United Kingdom, but small

quantities are despatched to Canada. Exports in recent years are given in the following table :—

TABLE XXXIV.—*Exports of Oranges from Jamaica.*

Exported to.	1924.	1925.	1926.
	*000 cwt.	*000 cwt.	*000 cwt.
United Kingdom	55	67	83
Canada	1	5	2
Bermuda	—	1	1
Other countries	1	1	1
Total	57	74	87

* Converted at 78 lb. per box.

83. There are said to be possibilities of further expansion in Jamaica orange production, although the quantities exported are small in comparison with those exported from the more important supplying countries.

Australia.

84. In 1925–26, 33,668 acres were under orange trees in bearing in Australia, mainly in New South Wales, and the total yield for the year was 3,300,000 bushels. As at that date there was also a considerable area not in bearing, the yield should show a considerable increase within a few years.

85. The acreage under oranges during recent years and the total production in each year are shown in the following table :—

TABLE XXXV.—*Area and Production of Oranges in Australia.*

Year.	Bearing.	Non-bearing.	Total.	Production.
	Acres.	Acres.	Acres.	000 bushels.
1919–20	29,344	11,372	40,716	2,263
1920–21	30,509	10,761	41,270	2,583
1921–22	31,097	11,066	42,163	2,864
1922–23	29,948	12,733	42,681	2,899
1923–24	30,580	14,181	44,761	2,821
1924–25	32,864	14,438	47,302	3,064
1925–26	33,668	12,816	46,484	3,326
1927–28	—	—	47,000	3,130

86. Over 60 per cent. of the orange area is in New South Wales, the remainder being divided more or less equally among Victoria, Queensland, South Australia and Western Australia.

87. Production, it will be seen, is increasing steadily, and while at present supplies are not much more than sufficient for domestic requirements, exports are increasing. Exports of citrus fruits (oranges are not separately distinguished) rose from about 41,000 cwt. in 1923–24 to 57,000 cwt. in 1924–25, and 114,000 cwt. in 1925–26, but fell to 59,000 cwt. in 1926–27. The bulk go to New Zealand, with smaller quantities to the United Kingdom and elsewhere.

88. The consumption of oranges per head of the population is as great in Australia as in almost any other country in the world, and unless domestic consumption increases still further, or production is curtailed, an increasing surplus for export appears probable, although the introduction of juice extractors and orange drink stalls has recently resulted in a great increase in the demand.

Brazil.

89. Brazil is already a very large producer of oranges, and appears destined to become one of the leading sources of supply of oranges to Europe during the summer and autumn months. No official records or estimates of production are available, but the Bank of London and South America, in its "Monthly Review," has given an estimate of annual production in the leading States as follows:—Sao Paulo, 400 million fruit; Minas Geraes, 220 million; Rio de Janeiro, 200 million; and Rio grande do Sul, 170 million; a total of about 1,000 million oranges annually, or about 3½ million cwt. Only in Sao Paulo and Rio de Janeiro, however, is there any production on a commercial scale. The principal varieties grown in these States are the Navel and Pera varieties, with some production also of Valencias and mandarines. The State of Bahia, further north, also produces Navel oranges (the famous "Washington Navel" was first introduced into California from Bahia).

90. Table XXXVI below shows exports of oranges from Brazil in 1913, 1918 and during the seven years ended 1927. Official returns give exports by number only.

TABLE XXXVI.—*Exports of Oranges from Brazil.*

Year.	*Thousand Oranges.*
1913	395
1918	14,189
1921	17,457
1922	35,588
1923	66,136
1924	73,068
1925	81,271
1926	42,086
1927	64,371

In the peak year, 1925, over 80 million fruits, equivalent to fully 270,000 cwt., or 400,000 standard boxes, were exported, but average exports are only about 5 or 6 per cent. of total production and the bulk of the fruit is consumed in Brazil or wasted. Most of the exports go to neighbouring countries in South America, Buenos Aires and Montevideo being the chief markets, but in 1927 experiments were made with commercial shipments to Europe, and in 1928 some 200,000 boxes were shipped to Europe, the greater proportion going to the United Kingdom.

91. There are difficulties in the way of a rapid expansion of the orange export trade to Europe. There is relatively little cultivation, a large proportion of the trees being in a wild or semi-wild condition. Generally, however, the fruit is clean and of excellent quality. Transport facilities are very poor—oranges from Limeira, the principal producing area in Sao Paulo, take 2½ days to reach Santos, and no refrigerated cars are provided. But these obstacles are being overcome. It is estimated that already, in the two states of Sao Paulo and Rio de Janeiro, fully 1,000,000 boxes are suitable for export to European markets. Transport facilities are likely to be improved; increasing attention is being given to methods of handling, packing and grading; and better shipping facilities are expected in future years. Moreover, orange plantations are rapidly extending, and the new plantations are intended primarily for the European export trade. This very rapid extension of the orange area suggests that within the next decade the exportable surplus, suitable for European markets, may considerably exceed one million boxes.

92. The season of shipment runs from about May to September inclusive, and thus almost coincides with the South African shipping season, and it is evident that supplies of Brazilian oranges are likely to rival in quantity, and possibly in grading, the South African fruit, with which they already compare favourably in general quality.

Argentina.

93. There are indications that the Argentine Republic may become an exporter of substantial quantities of oranges in the future, as consignments to foreign countries are increasing rapidly, and, in fact, increased more than threefold between the years 1923 and 1927. These exports are mainly despatched to neighbouring South American countries, principally Uruguay, but shipments to the United Kingdom have been made in recent years, some 300 cwt. being sent in 1924, and 5,200 cwt. in 1926.

94. The following table shows the development of the export trade between 1923 and 1927, indicating the principal countries of consignment.

TABLE XXXVII.—*Exports of Oranges and Mandarines from Argentina.*

Exported to.	1923.	1924.	1925.	1926.	1927.
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
Uruguay	5,700	14,400	21,200	30,600	(Not available.)
United Kingdom ..	—	300	1,000	5,200	
Chile	—	—	400	500	
United States	100	500	200	200	
Italy	—	100	—	—	
Germany	—	100	—	300	
English Possessions ..	—	—	—	100	
Total	5,800	15,400	22,800	36,900	27,500

95. The Argentine Republic imports large quantities of oranges, some $735,000 worth entering the country in 1927. These come

chiefly from Paraguay and Uruguay, but consignments are also received from Brazil and Spain. Imports are not shown by quantities and the only basis of comparison with exports is by value ; exports of oranges from the Argentine were valued at $74,550 in 1927, as compared with imports to the value of $734,612.

96. In spite of the excess of imports over exports, however, there are prospects of increasing shipments of Argentine fruit to Europe. The railway companies are fostering the development of orange growing for export purposes, and experts have been sent to California and South Africa to ascertain the best export varieties and methods of cultivation, and to the United States and Europe to study market conditions. Seedless oranges from the islands of the *Párana* delta have been sent to the United Kingdom and further shipments are likely. In Entre Rios, where there are already some 100,000 orange trees, plantations are extending, improved methods of handling are being introduced, and a large export trade is expected in a year or two, while it is estimated that from 20 to 25 per cent. of the mandarine production of this area (the number of trees is about 400,000) is already suitable for export, and improved cultural methods would substantially increase this proportion.

Ecuador.

97. Exports of oranges are mainly to Chile and Peru, the details for 1925 being shown in the following table :—

TABLE XXXVIII.—*Exports of Oranges from Ecuador*, 1925.

	Cwt.
Chile	52,100
Panama	100
Peru	31,200
Total	83,400

98. Total exports for a series of years compared with three pre-war years are as follows :—

TABLE XXXIX.—*Exports of Oranges from Ecuador.*

	Cwt.
1911	39,100
1912	22,900
1913	41,500
1921	33,100
1922	35,700
1923	62,000
1924	26,700
1925	83,400

Exports appear to be increasing, but no movement to ship overseas has yet been made and it is probable that the character and quality of the fruit are such as to make such exports impracticable, at any rate for the present.

Paraguay.

99. The orange growers in Paraguay are mostly under the control of the Banco Agricola, which is stated to have already effected substantial improvements in the methods of grading and packing. Exports, which are shown only by number, are considerable, and for the six years ending 1927 have been as follows :—

TABLE XL.—*Exports of Oranges and Mandarines from Paraguay.*

	Million.
1922	131
1923	222
1924	193
1925	240
1926	216
1927	140

100. Oranges in Paraguay are mostly wild, and there are few regular plantations. The fruit is of Valencia type of fine flavour and medium size. Exports are almost entirely to Argentina, but a quantity equal to that exported is stated to be allowed to rot. There are big possibilities of developing an export trade to Europe, in spite of prevalence of disease resulting from lack of care of the trees. It is estimated that once cultivation commenced, within a short period 150,000 boxes could be exported, the season running from May to July. Considerable improvements in methods of handling, packing and grading would, however, be necessary. Recent restrictions placed by the Argentine Government upon oranges imported from Paraguay have increased the probability of the Paraguayans seeking

an outlet in Europe for part of their production in future. Considerable quantities of mandarines are also grown, similar in shape to the South African naartje, but the general quality of this fruit is less satisfactory than that of Argentina and Uruguay.

Uruguay.

101. In the provinces of Salto (facing, across the River Uruguay, the province of Entre Rios in Argentina) and of Rivera, considerable quantities of oranges are produced. Hitherto considerable quantities of the fruit have found a market in Montevideo, with relatively small quantities exported to Buenos Aires, but the latter market (as in the case of Paraguayan fruit) is now restricted by import regulations, and it is reported that shippers are anxious to develop markets overseas. There are in the province of Salto some 300,000 mandarine and 100,000 orange trees, and plantations of the latter are extending rapidly. About 40 per cent. of the orange production is stated to be at present suitable for export to European markets, and exports next year are expected to reach 40,000 to 50,000 packages of mandarines and 75,000 to 100,000 boxes of oranges. As regards Rivera, annual production is estimated at about 6,000,000 fruits, about three-fifths of which are suitable for export. Plantations are expanding rapidly. Large exports are possible within a few years, as methods of handling, packing and grading improve, and the new plantations, developed with a view to export possibilities, come into bearing.

Other Producing Countries.

102. There are a number of other countries producing greater or smaller quantities of oranges, and most of them have some export trade. Among these may be mentioned—

Greece, which exports about 50,000 cwt. of all citrus fruits (including lemons), mainly to Bulgaria, Rumania and Russia ;

Turkey, which produces oranges mainly for local consumption, and exports fair quantities to the Black Sea ports of Russia and elsewhere ;

Malta, producing oranges and mandarines and exporting a few hundred cwts. to the United Kingdom each year ;

India, where considerable quantities of oranges are grown for local consumption, chiefly the " Nagpur " variety, a large thick-skinned juicy orange grown in the hilly districts of central India, and the " loose jacket," of tangerine type, grown in the west. There are no exports ;

Trinidad and other British West Indies, which grow small quantities and export mainly to other West Indian Islands. Trinidad in 1927 exported over 2½ million oranges;

Costa Rica, whose small exports (about 6,000 cwt. in 1925) go mainly to the United States;

Mexico, which in 1926 exported about 4,000 cwt. to the U.S.A.

Colombia, Peru and Chile, which all grow oranges, mainly for local consumption. No recent statistics of exports are available, but Chile and Peru import substantial quantities of oranges from Ecuador, and their own export trade in the fruit is not considerable.

Cook Islands, in the Pacific, from which New Zealand obtained 52,000 cwt. of oranges in 1925; 91,000 cwt. of oranges and 200 cwt. of mandarines and grape-fruit in 1926; and 65,000 cwt. of oranges and 270 cwt. of mandarines and grape-fruit in 1927;

New Zealand, which produces about 2,000 cwt. of oranges in North Island.

103. None of these are important in world trade, their exports being restricted to a limited number of markets. In so far, however, as they supply domestic or foreign markets which might otherwise call upon the surplus from the larger exporting countries, they cannot be overlooked.

IMPORTS.

United Kingdom.

104. The world's largest importer of oranges is the United Kingdom, which imported nearly 8,000,000 cwt. both in 1926 and in 1927. Since the war the quantity has been steadily increasing, and the figure for 1927 represents an 80 per cent. increase on that for 1920. Imports are now considerably in advance of those for pre-war years. During the last ten complete years before the war there was little variation in the quantity annually imported, this being invariably between 5,000,000 and 6,000,000 cwt., while during each of the five years ending 1927, the quantity has been between 7,500,000 and 8,000,000 cwt. The annual average imports for the five years ending 1927 were 7·8 million cwt., as compared with 5·7 million cwt. for the five years ending 1913, an advance of 37 per cent. In considering these figures notice must be taken of the re-exports, but the quantity of these has not varied much

between recent and pre-war years. The annual average quantity re-exported in the five years ending 1913 was 230,000 cwt., as compared with 223,000 cwt. in the five years ending 1927. The following table shows the total imports and re-exports for the years 1920 to 1927 as compared with the last five pre-war years :—

TABLE XLI.—*United Kingdom Imports and Re-Exports of Oranges.*

Year.	Imports.	Re-exports.
	1,000 cwt.	1,000 cwt.
1909	6,202	224
1910	5,470	255
1911	5,284	189
1912	5,562	239
1913	5,793	253
1920	4,402	30
1921	5,858	86
1922	6,983	103
1923	7,626	164
1924	7,520	280
1925	7,729	216
1926	7,973	201
1927	7,898	255

105. Spain is the principal country from which the United Kingdom imports of oranges are obtained, and 67 per cent. of the total were from this source in the year 1927. Of the remaining countries, Palestine sent 17 per cent., the Union of South Africa 6 per cent., United States 6 per cent., Egypt 1 per cent., Italy 1 per cent., British West Indies 1 per cent., and various other countries very small quantities.

106. Imports from Spain have shown a decline during the past few years, but this is mainly due to the adverse weather conditions experienced in that country, December frosts occurring both in 1925 and 1926. Nevertheless, the annual average imports from Spain for the five years ending 1927 is 6,000,000 cwt. as compared with 5,000,000 cwt. for the five years ended 1913, an increase of 20 per cent.

107. The following table shows the imports of oranges into the United Kingdom since the year 1920 compared with five pre-war years, and details the principal countries of consignment :—

TABLE XLII.—*Imports of Oranges into the United Kingdom.*

(In thousands of cwt.)

Country whence consigned.	1909.	1910.	1911.	1912.	1913.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.
Spain	5,493	4,818	4,522	4,955	5,022	3,920	5,210	6,125	6,474	6,146	6,010	6,096	5,291
Turkey (Asiatic) ..	365	359	409	372	520	124	—	—	—	—	—	—	—
Palestine	—	—	—	—	—	—	245	472	690	805	975	1,004	1,359
Syria	—	—	—	—	—	—	—	1	7	7	23	55	3
British South Africa	—	—	—	6	12	79	137	172	210	273	426	377	524
United States ..	44	33	43	44	24	8	29	4	29	80	28	156	431
Egypt	7	5	2	4	3	25	33	24	24	30	82	53	53
Italy	130	105	188	83	115	162	103	67	63	56	58	54	92
British West Indies	124	129	92	85	74	57	70	64	73	60	70	86	61
Portugal	14	3	8	4	3	4	6	13	13	4	5	3	3
Canary Isles ..	—	—	—	—	—	—	—	3	3	12	8	11	3
Argentina	—	—	—	—	—	—	—	—	—	1	3	14	12
Australia	—	—	—	—	—	—	—	24	23	12	21	1	2
Germany	7	5	5	5	9	—	7	2	2	9	4	23	18
France	1	2	—	1	—	9	4	2	3	3	5	8	1
Other countries ..	17	11	15	3	11	14	14	10	12	22	11	32	45
Total ..	6,202	5,470	5,284	5,562	5,793	4,402	5,858	6,983	7,626	7,520	7,729	7,973	7,898

Note :—Countries of consignment are not necessarily countries of production. For example, the bulk of the oranges shown as imported from Egypt consists of Palestine fruit re-exported, and imports from Germany similarly consist of fruit previously imported into that country.

108. Supplies from Palestine have rapidly developed during recent years and have increased fivefold since 1921. Steadily increasing supplies have also been obtained from the British South Africa, an import of 79,000 cwt. in 1920 having expanded to 524,000 cwt. in 1927, while imports from the United States have increased from 28,000 cwt. in 1925 to 431,000 cwt. in 1927, and it is evident that the United States has now gained a position in the British market which she will make every effort to consolidate. The quantities received from Italy, however, are only about half those of pre-war years, the annual average for the five years ending 1927 being 65,000 cwt., as compared with 124,000 cwt. for the five years ending 1913. The West Indies have declined also as a source of supply, the imports for the past five years averaging 70,000 cwt. as compared with an average of 100,000 cwt. for the last five complete pre-war years.

109. Spanish oranges dominate the United Kingdom market from November to June and fairly substantial quantities are usually received in July, but arrivals from August to October are small.

110. The main season for the imports from Jaffa is from December to April, while the chief months for the arrival of South African oranges are from July to November. It will thus be readily seen that South African oranges do not compete, except at the beginning and end of their season, with Spain and Palestine, the two main sources of supply.

111. United States oranges are imported throughout the year, but the heaviest arrivals are from May to November, the period of the year when Spanish and Palestine shipments are either diminishing or are negligible, and South African shipments have to meet increasing competition from this source of supply, as well as the probable increased imports from South America. Of the total imports of oranges in August, 1927, half were from the United States, and of the September total over 40 per cent. were from the same country.

112. Oranges are imported from Italy mainly from January to March, from the British West Indies mainly from October to December, from Australia from June to December, and from Brazil from May to December.

113. The following table shows the imports of oranges into the United Kingdom from the principal producing countries during each month in the years 1925, 1926 and 1927 :—

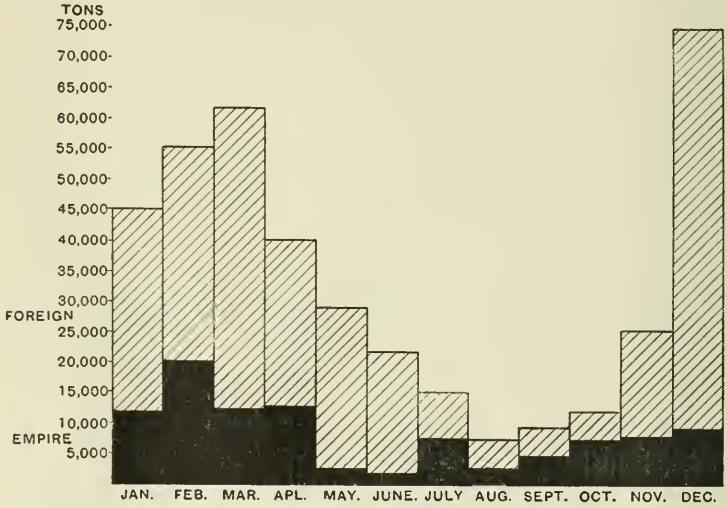
TABLE XLIII.—*Imports of Oranges into the United Kingdom each month,* 1925–27.

(000 cwt.)

	Spain.	Palestine.	South Africa.	U.S.A.	Italy.	South America.	British West Indies.	Other Countries.
January—								
1925	1,176	153	—	7	24	—	—	20
1926	972	176	—	1	16	—	—	49
1927	641	229	—	16	13	—	—	17
February—								
1925	887	205	—	2	12	—	—	11
1926	644	164	7	3	16	—	—	29
1927	644	407	—	10	35	—	—	8
March—								
1925	1,018	277	—	3	9	1	—	25
1926	1,150	234	—	11	5	8	—	21
1927	937	242	—	10	25	—	—	18
April—								
1925	749	224	—	2	2	—	—	19
1926	633	234	—	8	4	—	—	5
1927	539	250	—	17	4	—	—	4
May—								
1925	660	12	—	3	1	—	—	6
1926	567	2	1	10	3	—	—	13
1927	491	50	1	27	3	—	—	3
June—								
1925	276	14	2	2	4	—	—	2
1926	646	1	18	15	5	—	—	13
1927	337	—	30	48	5	2	—	6
July—								
1925	61	—	70	2	2	—	—	—
1926	215	6	129	26	1	1	—	13
1927	95	—	137	58	2	5	—	7
August—								
1925	3	—	124	3	—	1	1	1
1926	15	—	120	19	2	4	—	4
1927	8	—	54	71	—	8	—	3
September—								
1925	1	—	84	1	—	1	—	12
1926	—	—	66	22	1	1	—	1
1927	1	—	88	73	—	8	—	2
October—								
1925	—	—	81	2	—	—	28	11
1926	2	—	34	22	—	—	31	8
1927	1	1	128	83	—	4	7	4
November ..								
1925	148	5	49	1	1	—	27	14
1926	153	4	2	16	—	—	37	10
1927	313	45	65	24	3	1	34	18
December—								
1925	1,032	85	16	—	3	—	14	37
1926	1,099	183	—	3	1	—	18	18
1927	1,284	136	21	1	2	3	20	19
Total—1925 ..	6,011	975	426	28	58	3	70	158
1926 ..	6,096	1,004	377	156	54	14	86	184
1927 ..	5,291	1,360	524	438	92	31	61	109

114. The months when the imports are heaviest are naturally those in which the arrivals from Spain are heaviest, namely, November to June or July, while comparatively small quantities only are received in August, September, October and early November. Of the total imports for the twelve months in each year, the quantity received in the three months August, September and October, was only 7 per cent. in 1927, 4 per cent. in 1926, and 5 per cent. in 1925. This is the period when supplies are available from South Africa, United States, Brazil and Argentina, and increasing quantities may be expected from these sources in future. Diagram I shows monthly imports from Empire and foreign sources in 1927.

DIAGRAM I.—*Monthly Imports of Oranges into the United Kingdom in* 1927.



Germany.

115. Germany is the second largest importer of oranges in the world, receiving about 4,000,000 cwt. in each of the three years ended 1927. This represents an advance of nearly 40 per cent. on the 1913 total.

The following table shows the imports of oranges and mandarines from 1920 to 1927 as compared with 1913, and indicates the principal countries of origin :—

TABLE XLIV.—*Imports of Oranges and Mandarines into Germany.*

Imported from.	000 cwt.								
	1913.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.
Spain	2,488	72	330	222	98	1,906	2,993	2,737	2,728
Italy	337	292	828	152	169	1,150	1,084	957	1,315
United States	1	—	—	—	—	—	1	20	11
British South Africa	1	—	—	—	—	—	8	3	13
Algeria	—	—	—	—	—	—	1	3	(*a*)
Palestine	—	—	—	—	—	—	1	3	37
Brazil	—	—	—	—	—	—	—	2	13
France	7	1	—	—	—	11	3	10	12
Other countries	25	5	1	1	1	15	17	8	9
Total	2,859	370	1,159	375	268	3,082	4,108	3,743	4,138

(*a*) Included in other countries.

116. The above table shows that the bulk of the imports come from Spain, although large quantities are from Italy, but supplies from the other producing countries are comparatively small. It is interesting to note the decline in relative importance, as compared with 1913, of Spain as a source of supply, while Italy had advanced. In 1913 Spain supplied 87 per cent. of the total quantity imported and Italy 12 per cent., while in 1927 Spain supplied 66 per cent. and Italy 32 per cent.

117. As regards the principal months in which the imports are effected, the bulk are obtained from December to May, the main countries of origin during this period being Spain and Italy. During the remaining six months of the year—from June to November—comparatively small quantities are imported, but Spain and Italy are still shown as the main sources of supply, although there are small amounts from the United States, British South Africa, and in 1927 from Brazil. Of this slack period the months of August, September, and October, when very small quantities only are imported, are the quietest. The total imports of oranges and mandarines into Germany and the quantities from Spain, Italy and other countries for each month of the years 1925, 1926 and 1927, are given below :—

TABLE XLV.—*Imports of Oranges and Mandarines into Germany each month*, 1925–27.

Month.		Spain.	Italy.	Other Countries.	Total.
		000 cwt.	000 cwt.	000 cwt.	000 cwt.
January—	1925 ..	443	210	1	654
	1926 ..	455	134	2	591
	1927 ..	473	157	5	635
February—	1925 ..	662	307	8	977
	1926 ..	567	153	2	722
	1927 ..	483	345	14	842
March—	1925 ..	638	217	3	858
	1926 ..	573	231	19	823
	1927 ..	447	341	13	801
April—	1925 ..	539	35	4	578
	1926 ..	323	185	5	513
	1927 ..	396	225	6	627
May—	1925 ..	345	116	1	462
	1926 ..	246	128	2	376
	1927 ..	242	127	3	372
June—	1925 ..	40	32	2	74
	1926 ..	64	27	2	93
	1927 ..	52	23	5	80
July—	1925 ..	15	13	—	28
	1926 ..	19	26	1	46
	1927 ..	12	33	6	51
August—	1925 ..	5	11	1	17
	1926 ..	3	2	1	6
	1927 ..	5	1	6	12
September—	1925 ..	3	—	1	4
	1926 ..	—	—	1	1
	1927 ..	—	—	6	6
October—	1925 ..	—	—	2	2
	1926 ..	1	1	3	5
	1927 ..	4	1	6	11
November—	1925 ..	2	12	4	18
	1926 ..	12	5	2	19
	1927 ..	34	10	11	55
December—	1925 ..	301	132	3	436
	1926 ..	474	65	9	548
	1927 ..	580	52	14	646
Total—1925	.. ..	2,993	1,085	30	4,108
1926	.. ..	2,737	957	49	3,743
1927	.. ..	2,728	1,315	95	4,138

France.

118. France is an important market for oranges, but it is not possible to determine accurately the quantity imported, as oranges are grouped with lemons in the Trade Returns, although separate statistics are given for mandarines and China oranges. Practically all the imports from Spain are oranges, but a substantial part of the fruit imports from Italy are lemons.

119. Spain is the principal source of supply, and over 80 per cent. of the total oranges and lemons came from that country in 1927. Large quantities were from Italy, while substantial amounts came from Algeria and small quantities from Palestine, Syria and the United States.

120. The following table shows the imports of lemons and oranges for the six years ended 1927 compared with 1913, distinguishing principal countries whence consigned.

TABLE XLVI.—*Imports of Lemons, Oranges and their varieties into France.*

Imported from.	1913.	1922.	1923.	1924.	1925.	1926.	1927.
	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.
Spain	2,623	415	1,429	2,073	2,296	2,175	1,737
Italy	68	1,309	925	547	457	390	296
Algeria	61	122	88	102	60	169	85
Palestine	—	—	1	1	3	1	} 21
Syria	—	—	—	—	2	—	
Turkey	4	2	—	—	—	—	
United States ..	—	—	—	2	3	3	
Tunis	4	—	—	—	1	3	
Great Britain	7	2	2	1	2	2	
Belgium	1	—	1	1	1	2	
Switzerland	—	4	3	—	—	—	
Denmark	—	2	—	—	—	—	
Portugal	—	4	—	—	—	—	
Other countries.. ..	1	2	2	5	1	2	
Total	2,769	1,862	2,451	2,732	2,826	2,747	2,139

121. Considerable quantities of oranges and lemons are re-exported from France, the principal countries of consignment being Switzerland, Germany and Belgium. The following table shows the re-exports from 1922 to 1927 as compared with 1913.

TABLE XLVII.—*Re-exports of Lemons, Oranges and their varieties from France.*

Re-exported to.	1913.	1922.	1923.	1924.	1925.	1926.	1927.
	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.
Switzerland	163	70	38	193	290	407	—
Belgium	130	70	81	83	153	129	—
Germany	240	—	—	64	117	150	—
Other countries.. ..	7	15	21	62	13	3	—
Total	540	155	140	402	573	689	1

122. The principal importing months are December to June, when the Spanish shipments are heaviest, and comparatively small quantities are obtained from July to November. The following table shows the imports of lemons and oranges for each month of the year 1926 and 1927, indicating the principal countries of consignment :—

TABLE XLVIII.—*Imports of Lemons, Oranges and their varieties into France,* 1926 *and* 1927.

(Thousands of cwt.)

Imported from.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1926.												
Spain	243	333	430	333	321	136	24	14	12	4	44	282
Italy	30	26	21	22	59	33	36	38	35	29	14	47
Algeria	26	20	29	32	28	4	—	—	—	—	9	20
Other countries ..	2	2	3	2	1	—	—	—	—	1	1	1
Total	301	381	483	389	409	173	60	52	47	34	68	350
1927.												
Spain	200	387	266	329	174	35	7	6	5	9	76	243
Italy	35	42	21	40	7	35	23	14	14	13	28	24
Algeria	17	26	13	10	—	2	—	—	—	—	4	12
Other countries ..	2	2	2	3	2	2	—	—	1	1	2	2
Total	254	457	302	382	183	74	30	20	20	23	110	281

The relatively heavy imports during the months July to October are, of course, due to the inclusion of lemons, and the figures suggest that the quantity of oranges imported from Italy is very small, as was indeed indicated by Italian export figures.

123. Imports of mandarines and China oranges are mainly from Spain and Algeria. The following table gives the imports for the years 1922 to 1927, compared with 1913, and shows the principal countries of origin.

TABLE XLIX.—*Imports of Mandarines and China Oranges into France.*

Imported from.	1913.	1922.	1923.	1924.	1925.	1926.	1927.
	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.
Spain	115	98	195	379	334	379	243
Algeria	114	165	155	365	174	511	188
Italy	5	71	46	6	7	3	7
Other countries ..	—	1	1	—	—	6	
Total	234	335	397	750	515	899	438

124. Re-exports are mainly to Switzerland, but fair quantities are consigned to Germany, as shown in the following table for the years 1922 to 1927, compared with 1913.

TABLE L.—*Re-exports of Mandarines and China Oranges from France.*

Re-exported to.	1913.	1922.	1923.	1924.	1925.	1926.	1927.
	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.
Switzerland	21	15	14	54	54	126	—
Germany	18	—	—	4	16	66	—
Belgium	5	6	3	2	1	1	—
Other countries	1	2	2	1	1	3	—
Total	45	23	19	61	72	196	nil

125. The main importing months are December to April, as indicated in the following table of the monthly imports of mandarines and China oranges in 1926, showing principal countries whence consigned :—

TABLE LI.—*Imports of Mandarines and China Oranges into France in the year* 1926.

(000 cwt.)

Imported from.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Spain	104	78	16	1	2	—	—	—	—	—	11	165
Algeria	116	150	130	67	11	2	—	—	—	—	5	28
Other countries ..	7	1	1	—	—	—	—	—	—	—	—	—
Total	227	229	147	68	13	2	—	—	—	—	16	193

Belgium.

126. Oranges are not separately distinguished in the Belgian trade returns, being grouped with lemons. Increasing quantities of these two fruits are being imported, the yearly average for the three years ending 1927 being 578,000 cwt., as compared with an average of 455,000 cwt. for the two years ended 1921, and 504,000 cwt. for the three years ended 1913. The bulk of the supplies are from Spain, but substantial quantities are received from Italy, although it seems probable that these are mainly lemons. The quantities received from various countries during 1924 to 1927 compared with 1913 are shown in the following table:—

TABLE LII.—*Imports of Oranges and Lemons into Belgium.*

Imported from.	1913.	1924.	1925.	1926.	1927.
	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.
Spain	442	631	372	548	383
Italy	33	53	111	66	97
France	31	11	33	53	39
Great Britain	7	2	9	3	12
Other countries ..	7	2	6	1	
Total	520	699	531	671	531

127. The main months in which the fruit is imported are from November to May, comparatively small quantities only being recieved from June to October, and these, coming mainly from Italy, are probably mostly lemons. The following table shows the monthly imports by countries for 1926 and 1927.

TABLE LIII.—*Imports of Lemons, Oranges and the like into Belgium.*
(000 cwt.)

Imported from.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
					1927.							
Spain	40	64	69	40	25	4	—	—	—	1	37	102
Italy	21	18	13	8	8	6	5	4	4	3	4	5
France	7	9	5	3	1	—	—	—	—	—	5	8
Other countries ..	4	1	1	1	—	—	—	1	1	1	2	—
Total	72	92	88	52	34	10	5	5	5	5	48	115
					1926.							
Spain	120	87	105	61	47	4	3	—	—	—	16	105
Italy	5	5	8	8	6	5	4	4	4	5	4	6
France	11	13	12	6	2	—	—	—	—	1	2	7
Other countries ..	1	—	—	1	—	1	—	—	1	—	—	—
Total	137	105	125	76	55	10	7	4	5	6	22	118

Poland.

128. Considerable quantities of oranges are imported each year into Poland, the principal source of supply being Italy. The imports of oranges for the six years ending 1927, and the chief countries of consignment are shown in the following table :—

TABLE LIV.—*Imports of Oranges and Mandarines into Poland.*

Imported from.	1922.	1923.	1924.	1925.	1926.	1927.
	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.
Italy	Particulars not available		228	252	112	134
Spain			151	98	4	4
Germany			48	73	1	8
Other countries			15	21	6	
Total	175	154	442	444	123	146

129. A very heavy reduction in imports was recorded in 1926 and figures for 1927 were also low. This is due to the fact that oranges are now classed as a "luxury" import, and can only be imported under restricted licence. The chief months in which the fruit is imported are from December to June, and only very small consignments are received from July to October. The monthly imports for 1927 and the principal countries of consignment are given below :—

TABLE LV.—*Imports of Oranges and Mandarines into Poland in 1927.*

Month.	Imports from.			
	Italy.	Spain.	Other Countries.	Total.
	Cwt.	Cwt.	Cwt.	Cwt.
January	45,300	500	2,500	48,300
February	8,500	500	—	9,000
March..	21,100	1,000	1,300	23,400
April	24,000	1,200	1,200	26,400
May	15,500	700	600	16,800
June	7,800	100	400	8,300
July	200	—	—	200
August	500	—	—	500
September	—	—	—	—
October	—	—	—	—
November	700	—	100	800
December	10,000	500	1,800	12,300
Total ..	133,600	4,500	7,900	146,000

Austria.

130. Rapidly increasing imports of oranges have been recorded into Austria during its post-war economic recovery, as only 1,730 cwt. were imported in 1921 as against 252,000 cwt. three years later. The figure for 1926, however, was the same as that for 1925 at 314,000 cwt., and 1927 showed a slight reduction. Practically the whole of the imports are from Italy, and the quantity from Spain is very small by comparison.

131. The following table shows the imports of oranges (including peels) by countries during recent years.

TABLE LVI.—*Imports of Oranges and Peels into Austria.*

Imported from.	1921.	1922.	1924.	1925.	1926.	1927.
	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.
Italy	Particulars not available.			304	292	268
Spain				4	12	31
France				2	5	6
Trieste				3	2	—
Other countries				1	3	2
Total	2	68	252	314	314	307

132. The imports are mainly effected in the first and second quarters of the year, though fair quantities are received in the fourth (probably chiefly in December), while the amount received in the third quarter is practically negligible. The following table shows the imports by quarters for the year 1926 and for 1927.

TABLE LVII.—*Imports of Oranges and Peels into Austria.*

Imported from.	1926.			
	1st quarter.	2nd quarter.	3rd quarter.	4th quarter
	000 cwt.	000 cwt.	000 cwt.	000 cwt.
Italy	146	134	1	12
Spain	2	4	—	5
France	—	1	—	4
Trieste	1	1	—	1
Other countries	1	1	—	—
Total	150	141	1	22

TABLE LVII,—*Imports of Oranges and Peels into Austria—cont.*

Imported from.	1927.			
	1st quarter.	2nd quarter.	3rd quarter.	4th quarter.
	000 cwt.	000 cwt.	000 cwt.	000 cwt.
Italy	143	110	3	10
Spain	13	5	—	13
France	4	—	—	2
Other countries	2	1	—	1
Total	162	116	3	26

Switzerland.

133. Substantial quantities of oranges are annually imported into Switzerland and the amount received has been increasing in recent years. Spain and Italy supply practically the whole, and very small quantities only are received from the other producing countries. Small consignments were received from Cuba and Brazil in 1926. The imports for home consumption for the years 1923 to 1927 and the quantities received from the various countries are shown below :—

TABLE LVIII.—*Imports of Oranges and Mandarines into Switzerland.*

Imported from.	1923.	1924.	1925.	1926.	1927.
	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.
Spain	43	134	173	207	184
Italy	194	118	83	94	104
Algeria	—	4	4	4	3
Other countries ..	—	—	—	—	1
Total	237	256	260	305	292

134. The principal months of importation are from December to May and particularly small quantities are received from August to October. This is shown in the following table of the monthly imports for the years 1925, 1926 and 1927, showing the principal countries of consignment for the last two years.

TABLE LIX.—*Imports of Oranges and Mandarines into Switzerland.*
(In cwts.)

Imported from.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	1927.											
Spain	20,800	30,300	18,500	22,100	17,700	4,000	1,300	100	—	—	15,000	53,900
Italy	15,500	21,400	24,800	23,600	13,300	1,500	800	—	200	200	300	2,800
Algeria	700	300	100	—	—	—	—	—	—	—	300	1,400
Syria	—	300	—	—	—	—	—	—	—	—	300	200
South Africa ..	—	—	—	—	—	—	—	—	—	100	100	—
Total (1927) ..	37,000	52,300	43,400	45,700	31,000	5,500	2,100	100	200	300	16,000	58,300
	1926.											
Spain	26,000	32,400	38,100	27,900	18,100	9,900	1,100	100	200	—	6,300	46,700
Italy	8,500	17,100	20,900	20,600	9,700	5,300	2,000	1,600	300	700	600	6,400
Algeria	1,600	900	700	200	—	—	—	—	—	—	200	600
Total (1926) ..	36,100	50,400	59,700	48,700	27,800	15,200	3,100	1,700	500	700	7,100	53,700
Total (1925) ..	33,200	45,600	45,000	40,100	28,300	9,000	2,600	400	—	100	4,900	51,100

Czechoslovakia.

135. Considerable and increasing quantities of oranges are imported into Czechoslovakia, an average of 284,000 cwt. being received in the years 1925 to 1927, as compared with an average of 70,000 for the three years, 1922 to 1924. By far the greatest proportion of the total is consigned from Italy, and the quantity from Spain is very small by comparison.

136. The following table gives the imports for the six years ending 1927, and shows the quantities from the various consigning countries.

TABLE LX.—*Imports of Oranges into Czechoslovakia.*

Imported from.	1922.	1923.	1924.	1925.	1926.	1927.
	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.
Italy	59	69	65	237	241	231
Trieste	—	1	3	15	24	—
Hamburg	—	—	—	2	15	10
Spain	—	—	—	8	10	21
Austria	—	—	1	4	4	1
Germany	—	4	4	20	2	3
France	—	—	—	—	1	—
Arabia	—	—	—	—	1	—
Fiume	—	—	—	—	1	—
Other countries	2	1	1	—	—	2
Total	61	75	74	286	299	268

137. The main importing months are from December to June, the supplies during the remaining months from July to November being exceedingly small. The monthly quantities imported during 1926 and 1927 are shown in the following tables :—

TABLE LXI.—*Imports of Oranges into Czechoslovakia.*
(000 cwt.)

Imported from.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1927.												
Italy	15	51	67	46	24	8	1	—	—	—	2	17
Spain	1	2	3	5	4	—	—	—	—	—	—	5
Other countries ..	4	2	3	1	2	2	—	—	—	1	1	2
Total ..	20	55	73	52	30	10	1	—	—	1	3	24
1926.												
Italy	25	32	74	47	33	10	1	—	—	—	—	20
Spain	1	—	1	3	3	2	—	—	—	—	—	1
Trieste	3	5	10	5	—	—	—	—	—	—	—	—
Other countries ..	2	3	4	5	5	2	—	—	—	—	—	1
Total ..	31	40	89	60	41	14	1	—	—	—	—	22

138. Fair quantities of mandarines are also imported, principally from Italy and Spain, the total imports for the four years 1924–27 and the various countries of consignment being shown below :—

TABLE LXII.—*Imports of Mandarines into Czechoslovakia.*

Imported from.	1924.	1925.	1926.	1927.
	Cwt.	Cwt.	Cwt.	Cwt.
Italy	8,740	10,340	13,630	12,170
Spain	—	950	4,360	9,510
Trieste	360	1,070	2,160	20
Hamburg	20	—	1,210	380
Germany	90	80	140	20
France	—	80	140	250
Austria	270	420	120	270
Greece	—	—	20	20
Great Britain	10	10	—	—
Other countries	—	10	—	—
Total	9,490	12,960	21,780	22,640

139. The principal months of imports are from December to March as is shown in the following table of the monthly imports for 1926 and 1927.

TABLE LXIII.—*Imports of Mandarines into Czechoslovakia.*
(Cwt.)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
						1927.						
Italy	3,070	4,920	2,420	—	60	—	—	—	—	—	100	1,590
Other countries	1,850	770	—	—	—	—	—	—	—	—	920	6,930
Total	4,920	5,690	2,420	—	60	—	—	—	—	—	1,020	8,520
						1926.						
Italy	4,800	3,290	960	220	20	590	20	—	—	—	40	3,660
Other countries	1,440	880	200	370	—	—	—	—	—	—	—	5,260
Total	6,240	4,170	1,160	590	20	590	20	—	—	—	40	8,920

Norway.

140. Oranges are not separately distinguished in the Trade Returns of Norway, being grouped with lemons. Consumption of these two fruits is steadily increasing and the total imports in 1927 showed an advance of 82 per cent. on the 1913 figures. The following table gives the imports from the principal countries of consignment for the years 1922–26 in comparison with 1913 :—

TABLE LXIV.—*Imports of Oranges and Lemons into Norway.*

Imported from.	1913.	1922.	1923.	1924.	1925.	1926.	1927.
	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.
Spain	64	159	225	176	202	215	—
Italy	10	10	11	11	10	13	—
U.S.A.	—	—	1	—	1	1	—
Germany ..	29	15	14	7	11	19	—
Great Britain ..	41	13	12	8	11	7	—
Denmark ..	1	1	1	4	1	2	—
Netherlands ..	3	3	—	—	—	—	—
Total.. ..	148	201	264	206	236	257	269

141. The principal months in which the fruit is imported are from December to April ; supplies from July to November, especially from August to October, are small. The following table shows the monthly imports for the three years 1925 to 1927 :—

TABLE LXV.—*Imports of Oranges, Lemons, etc., into Norway.*

Month.	1925.	1926.	1927.
	000 cwt.	000 cwt.	000 cwt.
January	43	42	38
February	37	38	39
March	45	46	55
April	24	22	29
May	16	32	10
June	15	14	15
July	3	5	11
August	2	2	3
September	1	1	2
October	1	1	2
November	2	2	3
December	47	52	62
Total	236	257	269

Sweden.

142. Increasing quantities of oranges are being imported into Sweden, the total for 1927 being 247,000 cwt., as compared with 173,000 cwt. in 1922 and 123,000 cwt. in 1913. Spain and Italy send the bulk of the supplies but considerable quantities are re-exports from Germany, Denmark and the United Kingdom.

143. The imports for the five years ended 1926, compared with 1913, and the countries of consignment, are shown below :—

TABLE LXVI.—*Imports of Oranges into Sweden.*

Imported from.	1913.	1922.	1923.	1924.	1925.	1926.	1927.
	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.
Spain	32	79	63	68	87	95	—
Italy	39	33	49	64	51	84	—
U.S.A.	—	—	—	—	—	2	—
Germany ..	36	40	34	11	27	27	—
Denmark ..	4	15	20	14	14	11	—
Great Britain ..	11	6	5	3	4	3	—
Norway ..	1	—	1	—	—	—	—
Other countries	—	—	—	1	2	1	—
Total ..	123	173	172	161	185	223	247

144. The chief months in which oranges are imported are from December to June, and small quantities only are received from July to November. The following table gives the monthly imports for the three years 1925 to 1927 :—

TABLE LXVII.—*Imports of Oranges into Sweden.*

Month.	1925.	1926.	1927.
	000 cwt.	000 cwt.	000 cwt.
January	25	28	32
February	31	31	44
March	32	44	49
April	28	32	30
May	21	26	20
June	9	14	15
July	1	2	3
August	—	1	1
September	—	1	2
October	—	1	1
November	1	—	1
December	37	43	49
Total	185	223	247

Irish Free State.

145. Considerable quantities of oranges are consumed in the Irish Free State, and the yearly average imports for the three years ended 1927 have been 170,000 cwt. Most of this quantity represents re-exports from Great Britain and Northern Ireland but substantial amounts are imported direct from Spain and small quantities from Italy. The following table shows the imports by countries for the four years 1924–27.

TABLE LXVIII.—*Imports of Oranges into the Irish Free State.*

Imported from.	1924.	1925.	1926.	1927.
	000 Cwt.	000 Cwt.	000 Cwt.	000 Cwt.
Great Britain	103	108	116	126
Northern Ireland	11	12	14	10
Spain	52	43	37	41
Other countries	4	—	3	—
Total	170	163	170	177

146. The main importing months are from December to July, the period from August to November receiving comparatively small amounts. The monthly imports for 1926 and 1927 are as follows :—

TABLE LXIX.—*Imports of Oranges into Irish Free State.*

Month.	Imports in.	
	1926.	1927.
	000 cwt.	000 cwt.
January	22	20
February	16	16
March	22	24
April	20	26
May	17	15
June	21	19
July	17	10
August	6	6
September	3	4
October	2	3
November	3	9
December	21	25
Total	170	177

Denmark.

147. The Danish market for oranges does not appear at the moment to be expanding. The quantity imported during each of the years 1925 and 1926 was uniform at about 177,000 cwt. and in 1927 showed a fall to 155,000 cwt., as compared with an average of 184,000 cwt. for the four previous years. The yearly import is, however, much in excess of the pre-war figure, the average for the five years ending 1927 being 178,000 cwt. as compared with an average of 73,000 cwt. for the two years 1912 and 1913, an advance of nearly 150 per cent.

148. Spain is the principal country whence oranges are imported, but large quantities are also received from Italy. Spain has increased in relative importance as a direct source of supply, as 54 per cent. of the total imports in 1926 were consigned from Spain and 36 per cent. from Italy, as compared with 32 per cent. from Spain and 36 per cent. from Italy in 1913. The proportion of imports

which represent re-exports from Germany and Great Britain was, however, higher in 1913, and it is not possible to state the origin of these.

149. The following table shows the total imports of oranges and mandarines into Denmark, and the quantities from the various consigning countries for the six years ending 1926 in comparison with the years 1912 and 1913.

TABLE LXX.—*Imports of Oranges and Mandarines and the like into Denmark.*

Imported from.	1912	1913	1921	1922	1923	1924	1925	1926	1927
	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.
Spain ..	19	23	123	108	116	129	120	95	—
Italy ..	27	26	41	40	39	56	44	64	—
Germany	10	11	9	23	34	6	10	11	—
Gt. Brit.	14	10	6	2	1	2	2	5	—
Other countries	4	2	2	—	—	—	1	1	—
Total	74	72	181	173	190	193	177	176	155

150. A fair proportion of the imports are re-exported principally to Sweden, as shown in the following table of re-exports for the six years ending 1926 :—

TABLE LXXI.—*Re-exports of Oranges and Mandarines and the like from Denmark.*

Re-exported to.	1921.	1922.	1923.	1924.	1925.	1926.
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
Sweden	4,720	4,800	6,020	9,430	13,600	10,770
Germany	—	70	3,150	14,300	—	1,740
Norway	70	530	490	2,840	630	3,050
Finland	—	10	200	—	740	—
Other countries	620	100	300	650	1,350	1,310
Total	5,410	5,510	10,160	27,220	16,320	16,870

151. The main importing months are from December to June, the remaining months from July to November, receiving small quantities only. The monthly imports for 1926 and 1927 are as follows :—

TABLE LXXII.—*Imports of Oranges into Denmark.*

Month.	1926.	1927.
	000 cwt.	000 cwt.
January	22	16
February	28	25
March	33	27
April	17	21
May	23	11
June	9	7
July	2	1
August	1	1
September	—	—
October	—	1
November	—	1
December	41	44
Total	176	155

Hungary.

152. Imports of oranges into Hungary were much heavier in 1927 than in the previous year, the total for the first quarter in 1927 having exceeded the 152,000 cwt. for the whole year 1926. Practically the whole of the supplies are from Italy, and are imported mainly in the first half of the year, while the quantity in the third quarter is very small indeed. Presumably the bulk of the imports in the last quarter of the year are received in December, as is the case with other European countries. The quarterly imports for the years 1926 and 1927 are shown in the following table :—

TABLE LXXIII.—*Imports of Oranges and Mandarines into Hungary.*

Imported from.	1st quarter.	2nd quarter.	3rd quarter.	4th quarter.
	000 cwt.	000 cwt.	000 cwt.	000 cwt.
	1927.			
Italy	158	49	—	25
Other countries	2	2	—	7
Total	160	51	—	32

(37175)

TABLE LXXIII.—*Imports of Oranges and Mandarines into Hungary.* —continued.

Imported from.	1st quarter.	2nd quarter.	3rd quarter.	4th quarter.
	000 cwt.	000 cwt.	000 cwt.	000 cwt.
		1926.		
Italy	105	28	—	14
Other countries	3	1	—	1
Total	108	29	—	15

Yugo-Slavia.

153. The principal source of supply of imports of oranges into Yugo-Slavia is Italy, as is shown by the following table of imports during 1927.

TABLE LXXIV.—*Imports of Oranges into Yugo-Slavia*, 1927.

	000 *cwt.*
Italy	108
Greece	3
Austria	1
Other countries	1
Total	113

Russia.

154. Small quantities of oranges are imported annually into Russia, a large proportion being supplied by Turkey, and the remainder mostly by Italy. The total imports of oranges and mandarines in 1926–27 were 39,000 cwt. as compared with 58,000 cwt. in 1925–26.

Finland.

155. Increasing quantities of oranges are imported annually into Finland, mainly from December to June. Total imports for 1927 amounted to 69,000 cwt., as compared with 72,000 cwt. in 1926. The following table shows the monthly imports for the two years ended 1927.

TABLE LXXV.—*Imports of Oranges into Finland.*

Month.	1926.	1927.
	000 cwt.	000 cwt.
January	5	7
February	9	11
March	19	18
April	18	13
May	9	7
June	4	4
July	2	2
August	—	1
September	—	—
October	—	—
November	—	—
December	5	5

Canada.

156. Imports of oranges into Canada are practically all from the United States, as is shown in the following table of imports for the years 1925–26 and 1926–27.

TABLE LXXVI.—*Imports of Oranges into Canada.*

Imported from.	1925–26.	1926–27.
	Thousand boxes.	Thousand boxes.
United States	1,617	2,144
United Kingdom	5	9
Japan	81	94
Spain	11	5
Italy	3	7
Hong Kong	1	1
Jamaica	7	2
Other British West Indies	1	—
Mexico	3	—
Australia	1	—
Porto Rico	—	1
Total	1,730	2,263

Prior to the year 1926 imports of oranges were shown only by value in the Trade Returns.

CONCLUSION AND SUMMARY.

157. Within the past few years the world's commercial production of oranges has made very rapid strides, and the problem of disposing of the crop at a price remunerative to the grower is becoming increasingly difficult. Although definite information is lacking, there is evidence to show that Spain, the world's largest exporter, is likely to increase still further her contribution to the world's supply. Production in the United States is likely to increase very substantially within four or five years, as recent plantings come into full bearing and the yield in Florida recovers. In Italy, although the acreage under oranges is expanding but slowly, there is at any rate no retrograde movement, and recent regulations regarding export standards may be expected ultimately to increase the exportable surplus of quality fruit. In South Africa and in Palestine, plantings in recent years have been extensive, and production is likely to double itself within a few years, and to continue to increase thereafter, with an exportable surplus within the next decade several times as great as current figures. In the British West Indies, although no appreciable increase is recorded in recent exports, there are signs of renewed interest in citrus cultivation. Australian production is growing year by year. Japanese production and exports have shown an increase in recent years, and may increase further. Cyprus is gradually feeling its way towards a wider market for the oranges it produces in considerable quantities. The countries of South America, many of them large producers of oranges, are similarly turning their attention to markets outside the confines of their own continent, and large exports to Europe, especially from Brazil, may be looked for within a few years. Other producing and exporting countries, which serve only limited markets, such as Algeria, Portugal, Turkey and Greece, are maintaining their exports, and new countries which may have to be considered in the future are the colonies in East and West Africa.

158. The development of exports from certain exporting countries in recent years can be seen in the following table, which shows exports from 1922–26, with comparative figures for 1911–13, where available.

TABLE LXXVII.—*Exports of Oranges (including Mandarines) from certain Countries*, 1922–26.

Exported from.	Thousands of cwt.					
	Average 1911–13.	1922.	1923.	1924.	1925.	1926.
Spain	10,328	7,890	9,070	12,610	14,060	14,110
Italy	2,421	1,710	1,600	2,430	2,840	2,670
U.S.A.	804	962	1,598	1,786	1,380	1,875
Palestine	900	863	1,109	1,310	1,301	1,315
South Africa	14	186	203	311	471	403
Jamaica	—	58	70	57	74	87
Australia†	34	53	73	41	57	114
Algeria	204*	396	222	422	350	620
Japan	246	237	258	193	257	342
China	362	233	165	267	162	161

* Includes lemons. † All citrus fruits ; year ended 30th June.

159. Exports from the above countries, in spite of individual setbacks, have progressed year by year since 1922, and in the three years 1924–26 were round about 20,000,000 cwt. per annum, or from 60 to 70 per cent. above the 1922 level, and fully one-third greater than before the war. Although complete figures for 1927 are not yet available for all the above countries, the evidence shows that a further substantial increase occurred in that year.

160. The problem of disposing of the increasing supplies produced within these countries is now engaging the attention of growers' organisations everywhere. In countries such as the U.S.A., Australia and South Africa, and some of the smaller producers where domestic consumption absorbs a large proportion of the total crop, efforts are being made to stimulate home consumption, in addition to finding further outlets abroad. The introduction of mechanical contrivances for juice extraction for the preparation of fruit drinks for immediate consumption is stated to have had striking results in increasing the consumption of oranges and other citrus fruits in the U.S.A., Canada, and Australia. About 56,000 extractors are stated to have been

issued by the California and Florida Fruit Growers' Organisations, and it is estimated that these account for about 3,000,000 boxes of fruit (equivalent to about 2,000,000 cwt.) annually. Similar extractors have been introduced into Australia, South Africa, and New Zealand, and the possibility of extending their use in other countries (where, however, the machines would be dealing with imported instead of home-produced fruit) appears worthy of consideration.

161. Apart from such contrivances for the processing of oranges to provide juice drinks, there appear to be possibilities in the commercial production of orange juice and pulp for export. There are difficulties in the way of development in this direction connected with the keeping quality of the juice when shipped in bulk, but the solution of the transport problem would be likely to open up an extensive market for the product in both tropical and temperate climates. A further suggestion has recently been put forward in California of the utilisation of " cull " oranges in the manufacture of " marmalade juice " and " orange juice " suitable for the preparation of marmalade and jelly.

162. The chief consuming markets for the world's exportable surplus are at present, and will for many years continue to be, the European countries. Canada, where consumption has increased rapidly in recent years, is a natural outlet for the U.S.A. surplus, and imports also to a lesser extent from Japan and the West Indies ; New Zealand obtains the bulk of its requirements from Australia and from the Cook Islands, although U.S.A. oranges are also reaching this market. China, itself an important producer, provides a market for the greater part of the Japanese surplus ; and those South American countries which do not produce sufficient oranges for their own needs are in the main dependent upon the produce of adjacent territories. But Europe takes the bulk of the exports from all other important producing countries, and an increasing proportion of the U.S.A. surplus, and is now starting to take appreciable quantities from South America.

163. In certain countries of Europe consumption of oranges has made substantial progress within the past few years. Imports of oranges into a number of the chief countries in the five years 1922–26 are shown in the following table :—

TABLE LXXVIII.—*Imports of Oranges and Mandarines into the Chief Importing Countries.*

Imported into.	1922.	1923.	1924.	1925.	1926.
	000 cwt.	000 cwt.	000 cwt.	000 cwt.	000 cwt.
United Kingdom ..	6,880	7,462	7,240	7,513	7,772
Germany	375	268	3,082	4,108	3,743
France*	2,018	2,688	3,017	2,695	2,760
Poland	175	154	442	444	123
Switzerland	222	237	256	260	305
Norway*	201	264	206	236	257
Sweden	173	172	161	185	223
Czechoslovakia ..	61†	75†	83	298	321
Denmark	168	179	165	160	159
Austria	68	—	252	314	314
Belgium*	—	607	699	531	671
Irish Free State ..	—	—	171	163	170
China	—	187	176	250	366

* Includes lemons.

† Excluding small quantities of mandarines, of which 9,000 cwt. were imported in 1924.

164. From a total of less than 11,000,000 cwt. in 1922 imports into these countries have increased to 16,000,000 cwt. in 1924 and to about 17,000,000 in 1925 and 1926. A further increase may be looked for, but it is perhaps doubtful whether the prospective increase in the exportable surplus from producing countries can be fully absorbed by these countries unless consumers are enabled to purchase the fruit at lower prices than those now current. The increasing competition among producing countries seems likely to raise the general standard of quality of export fruit, and this would clearly result in limiting the volume of exports, but this means increasing the quantities of cull fruit, for which some profitable use must be found, either in the production of orange juice and pulp for export, or in other ways, such as oil production, cattle feed, etc.

165. That there is room for a considerable expansion in the consumption of raw oranges (aided, perhaps, by the " extractors," to which reference has been made above) is hardly open to doubt.

Approximate calculations, based upon production, imports and exports, show that even in the United States consumption per head of the population amounted in 1926–27 to only about 23 lb., or little more than one orange per week. In Australia, Canada and the United Kingdom, consumption is slightly less, at about 19 or 20 lb. per head, and no other European country consumes one-half this amount per head. Estimated annual consumption per head is shown below :—

TABLE LXXIX.—*Consumption of Oranges.*

Country.	lb. per head.	Country.	lb. per head.
U.S.A.	23	France	7*
Australia	20	Irish Free State ..	6
United Kingdom ..	19	Denmark	5
Canada	19	Austria	5
New Zealand	12	Sweden	4
Norway	10*	Czechoslovakia ..	3
Belgium	10*	Hungary	2
Switzerland	9	Poland	½
Germany	7		

* Including lemons.

166. *Import Duties.*—One obstacle to the increased consumption of oranges in many European countries is to be found in the duties imposed upon imports, and the removal of these tariffs would undoubtedly stimulate consumption and help to solve the problem of disposing of the world's surplus. The recent removal of the import duty on oranges in Estonia has been followed, it is reported, by a rapid increase in consumption. The tariffs on imported oranges in certain countries are shown below, with conversions at the current rate of exchange :—

TABLE LXXX.—*Import Duties on Oranges.*

United States	1 cent (½*d.*) per lb.
Canada	Free.
United Kingdom	Free.
Belgium	5 francs (7*d.*) per 100 kilogs. 80 francs per 100 kilogs. on packages of 5 kilogs. or less. Also 2 per cent. *ad valorem* turnover tax.

TABLE LXXX.—*Import Duties on Oranges.*—continued.

Switzerland	10 francs (8*s.*) per 100 kilogs.
Italy	2 gold lire (1*s.* 7*d.*) per 100 kilogs.
Germany	2·50 Reichemarks (2*s.* 5*d.*) per 100 kilogs.
France	35 francs (5*s.* 8*d.*) per 100 kilogs. on Palestine, Spanish, United States and Italian oranges. 70 francs per 100 kilogs. on South African oranges. 50 francs per 100 kilogs. on mandarines. Also turnover tax 2 per cent. *ad valorem.*
Austria	6 gold krone (5*s.*) per 100 kilogs., also 6 per cent. *ad valorem* turnover tax.
Yugo-Slavia	5 gold dinars (4*s.*) per 100 kilogs. (If paid in paper currency, the rate is raised 11 times.)
Finland	75 Finnish marks (7*s.* 9*d.*) per 100 kilogs.
Norway	2 kroner (2*s.* 3*d.*) per 100 kilogs.
Czechoslovakia	60 krone (7*s.* 4*d.*) per 100 kilogs. on oranges. 90 krone per 100 kilogs. on mandarines. Also luxury tax 17 per cent. on total value plus tax plus transport.
Denmark	6·5 kroner (7*s.* 3*d.*) per 100 kilogs.
Sweden	10 kroner (11*s.* 1*d.*) per 100 kilogs.
Hungary	6 gold kroner (5*s.*) per 100 kilogs., also 13 per cent. *ad valorem* luxury tax.
Poland	206·40 zloty (£4 15*s.*) per 100 kilogs. plus 10 per cent.
Lithuania	150 lits (£3 2*s.*) per 100 kilogs.
Latvia	100 or 150 lats (£4 or £6) per 100 kilogs., also surtax 15 centimes per 10 lats.
Estonia	Free.*
Turkey	2,025 piastres (£2 3*s.*) per 100 kilogs., also 6 per cent. *ad valorem* transaction tax.
Bulgaria	30 gold levas (£1 4*s.*) per 100 kilogs., also octroi tax of 10 gold levas per 100 kilogs. If paid in paper currency, these rates are increased 20 times.
Netherlands	Free.
Rumania	8 gold lei (6*s.* 4*d.*) per 100 kilogs., also port tax of ½ per cent. *ad valorem*, also turnover tax 24 paper lei (7*d.*) 100 kilogs. If paid in paper currency, 320 lei (8*s.*) per 100 kilogs.

167. So far as Empire orange supplies are concerned, the two chief exporting countries are at present South Africa (including Rhodesia) and Palestine, with Australia, West Indies and Cyprus shipping smaller quantities. Palestine, Cyprus and the West Indies supplies

* Duty removed 5th June, 1928.

are available in the same seasons as the Spanish and Italian fruits, and have naturally to meet the most intense competition. The Palestine shippers have recently exploited new markets in Central Europe, and are investigating the possibility of finding new outlets in South America. As regards South African oranges, and also Australian, if and when these come forward in large quantities, the season overlaps only at either end with the Spanish season, although the latter may ultimately be extended by the planting of later varieties. European demand for oranges in the summer months, when South African supplies are on the market, is affected by the supplies of domestic fruits. In addition, shipments from the United States are at their maximum in these months, and South American supplies, should they become important, will also fall in this period. At the same time, the summer consumption of oranges is very small everywhere in Europe, and particularly so outside the United Kingdom. In the following table are shown imports of oranges into certain European countries in the four months, July to October, in the year 1926, with the percentage of these to total imports for the year.

TABLE LXXXI.—*Imports of Oranges, July to October,* 1926.

Country.	Imports, July to October.	Percentage of imports for year.
	cwt.	Per cent.
United Kingdom	743,000	9
Germany	57,400	1½
France	193,000†	7†
Poland	1,400	1
Switzerland	6,000	2
Norway	7,800†	3†
Sweden	4,800	2
Czechoslovakia	1,700	0·5
Hungary	400*	0·3*
Denmark	3,300	2
Austria	850*	0·3*
Belgium	21,600†	3†

* July to September. † Includes lemons.

168. Of the world's largest exporting countries, only the United States exports oranges during the late summer and autumn months, and exports from that country are falling off from June to November. South Africa and South America, which both export during these months, are likely to increase rapidly in importance, but their exports in the aggregate are at present only small compared with those of Spain, Italy, the United States and Palestine. In diagram II on the next page are shown monthly exports from the five largest orange exporting countries, clearly revealing the predominance of the months from November to April in the world's orange supplies.

169. It has already been shown that there is room for expansion in orange consumption in European countries generally. The above figures show that orange consumption in the summer months is practically negligible, and suggest that eventually a market for the increasing production of South Africa, Australia, the U.S.A., and South America, may be found in these countries. It is largely a matter, however, of regular supplies at a price which consumers are able and willing to pay. In most European countries there are more or less plentiful supplies of home-produced fruit available, and consumers have a choice of fruits at fairly low prices. The improvement in the economic condition of Europe should, however, facilitate the sale of imported luxury fruits, among which summer oranges may be classed, although in view of the prospective increase in supplies in the near future, it would be hazardous to prophesy that the whole of the summer surplus a few years hence will be disposable at the price levels of recent years.

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